

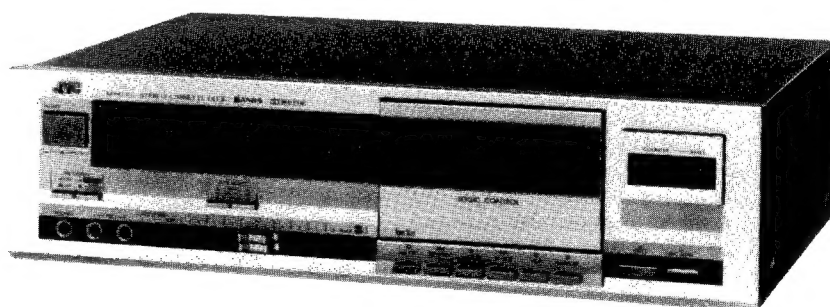
# JVC

## SERVICE MANUAL

MODEL

**KD-D30 A/B/C/E/J/U**

STEREO CASSETTE DECK



No. 4209  
April, 1982

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## Specifications

|                                      |   |
|--------------------------------------|---|
| Type                                 | : Stereo cassette deck  |
| Track system                         | : 4-track, 2-channel  |
| Tape speed                           | : 1-7/8 inch/sec (4.8 cm/sec)   |
| Frequency response: (0 dB recording) |   |
|                                      | Metal tape *1;  |
|                                      | 30—12,500 Hz ( $\pm 3$ dB)  |
|                                      | SA/Chrome tape *2;  |
|                                      | 30—8,000 Hz ( $\pm 3$ dB)   |
|                                      | SF/Normal tape *3;  |
|                                      | 30—8,000 Hz ( $\pm 3$ dB)   |
|                                      | (—20 dB recording)  |
|                                      | Metal tape *1;  |
|                                      | 20—16,000 Hz  |
|                                      | 30—15,000 Hz ( $\pm 30$ dB)   |
|                                      | SA/Chrome tape *2;  |
|                                      | 20—16,000 Hz  |
|                                      | 30—15,000 Hz ( $\pm 3$ dB)  |
|                                      | SF/Normal tape *3;  |
|                                      | 20—15,000 Hz  |
|                                      | 30—14,000 Hz ( $\pm 3$ dB)  |
| Note: *1 .....                       | JVC ME or Equivalent  |
| *2 .....                             | TDK SA or Equivalent  |
| *3 .....                             | MAXELL UD or Equivalent   |
| S/N ratio                            | : 58 dB (S = 1 kHz, K3 = 3%,<br>N = A-Weight, Metal tape)<br>The S/N is improved by about<br>15 dB at 500 Hz and by max,<br>20 dB at 1 kHz—10 kHz with<br>DOLBY C NR on and improved by<br>5 dB at 1 kHz and by 10 dB at<br>above 5 kHz with ANRS/DOLBY B<br>NR on. |
| Improvement of MOL                   | : 4 dB at 10 kHz with DOLBY C NR<br>on.   |
| Wow and flutter                      | : 0.05% (WRMS),<br>0.16% (DIN 45 500)   |
| Crosstalk                            | : 60 dB (1 kHz)   |
| Harmonic distortion                  | : K3; 0.5% THD; 1.0%<br>(Metal tape, 1 kHz 0 VU)  |
| Heads                                | : METAPERM head for recor-<br>ding/playback, 2-gap ferrite head<br>for erasure.   |
| Motor                                | : Electronic governed DC motor  |
| Fast f! rward time                   | : Approx 100 sec. with C-60<br>cassette   |
| Rewind time                          | : Approx 100 sec. with C-60<br>cassette   |

|                        |  |
|------------------------|--|
| Input terminals        |  |
| Mic jack $\times 2$    | : Max. sensitivity; 0.2 mV<br>(-74 dBV)<br>Matching impedance;<br>600 $\Omega$ -10 k $\Omega$    |
| Input jack $\times 2$  | : Min. input level; 80 mV<br>Input impedance; 100 k $\Omega$                                     |
| Output terminals       |  |
| Output jack $\times 2$ | : Output level; 300 mV<br>Output impedance; 5 k $\Omega$   |
| Phones jack $\times 1$ | : Output level 0.3 mW/8 $\Omega$<br>Matching impedance; 8-1 k $\Omega$                           |
| Power requirement      | : AC 240/220/120 V, 50/60 Hz<br>(KD-D30 A/B/C/E/J)<br>AC 240/220/120/100 V<br>50/60 Hz (KD-D30U) |
| Power consumption      | : With power on 17 W<br>With power switch off 1.3 W  |
| Dimensions             | : 17-1/8" (435 mm) W<br>4-9/16" (116 mm) H<br>10-13/16" (275 mm) D                               |
| Weight                 | : 11.2 lbs (5.1 kg)  |
| Accessories            | : Pin plug cord ..... 2  |

Design and specifications are subject to change without notice.

## Features

- DOLBY\* C NR system.
- Music Scan mechanism  
"Under license of Staar S.A., Brussels Belgium"
- Metal tape compatible.
- 2-color LED peak level indicator.
- TIMER START facility.
- Full auto-stop mechanism.
- Tape running indicator.
- Geared and oil-damped cassette door.
- Automatic input select.
- REC MUTE (record muting) mechanism.

\*"Dolby" and the double-D symbol are trademark of Dolby Laboratories Licensing Corporation.

# Controls and Connections

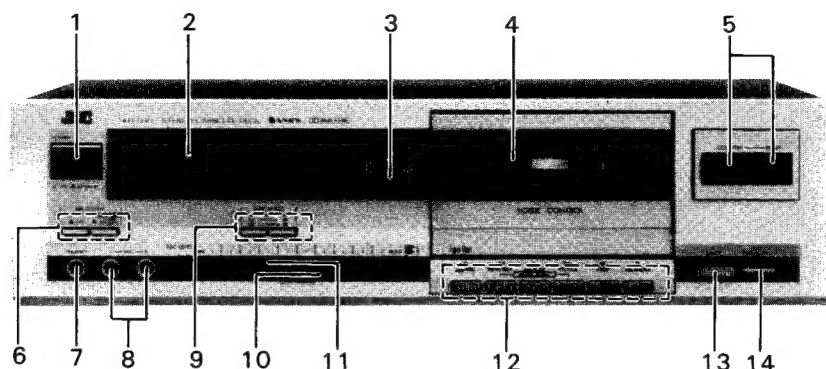


Fig. 1

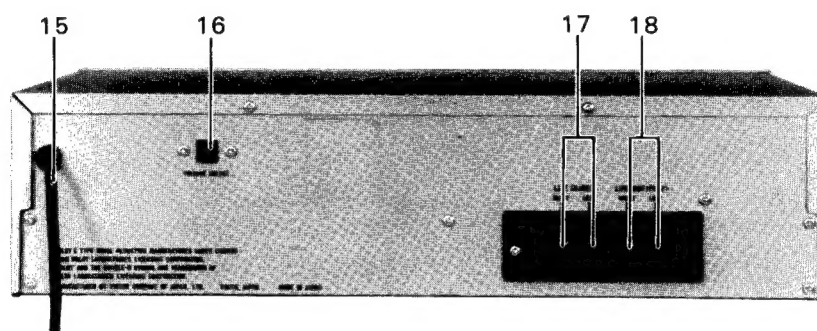


Fig. 2

- |   |                                     |
|---|-------------------------------------|
| 1. POWER switch   | 12. Cassette operation buttons      |
| 2. MULTI PEAK INDICATOR   | ○ REC (Record) button               |
| 3. Tape running indicator   | ◀◀ REW/REV (Rewind/Review) button   |
| 4. Cassette holder  | ▶▶ PLAY button                      |
| 5. Tape COUNTER/counter RESET button  | ▶▶ FF/CUE (Fast forward/cue) button |
| 6. NR SYSTEM switches [OFF, $\frac{\text{ANRS}}{\text{DOLBY B}}$ , DOLBY C] | ■ STOP button                       |
| 7. Headphone jack [PHONES]  | ▬ PAUSE button                      |
| 8. Microphone jacks [MIC-L, MIC-R]  | 13. EJECT button                    |
| 9. TAPE SELECT switches [METAL, SA/CrO <sub>2</sub> , SF/NORM]              | 14. REC MUTE button                 |
| 10. REC LEVEL control (right)   | 15. Power cord                      |
| 11. REC LEVEL control (left)  | 16. Voltage select switch           |
|   | 17. LINE IN (REC) terminals         |
|   | 18. LINE OUT (PLAY) terminals       |

## Main Parts Location

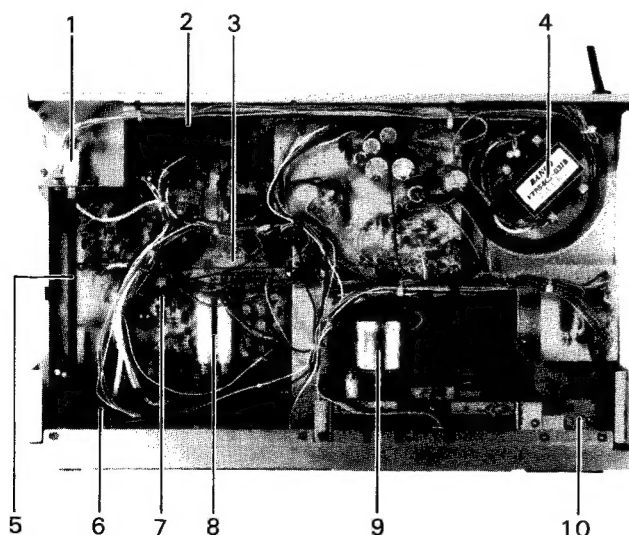


Fig. 3

1. Power switch
2. Pin jacks ass'y
3. Recording switch
4. Power transformer
5. Remote bar for power transformer
6. Microphone jacks
7. Main P.W. board ass'y
8. Tape select switches
9. Motor
10. Hall IC. P.W. board

# Description of New Technology

## Dolby C-type Noise Reduction System

— A newly developed IC is used to reduce noise and expand the MOL (maximum output level) dramatically. —

The Dolby C-type closely resembles the B-type in operation, the system compatible with ANRS, yet offers even better performance and more distinctive features. Namely:

- Noise reduction is greater — 20 dB from 1 kHz to 10 kHz and as much as 15 dB at 500 Hz.
- At 10 kHz it improves MOL by 4 dB when recorded at 0 VU.
- It is immune to undesirable side effects such as modulation noise and breathing.

Dolby C noise reduction solves the problem of achieving a large amount of compression and expansion without introducing undesirable side effects by the use of two processing stages in series, each supplying 10 dB of compression during recording and of expansion during playback. These circuits operate at independent levels. One, identified as the high-level stage in Figure B, is sensitive to signals at about the same levels as Dolby B-type noise reduction, while the other, the low-level stage, operates on signals of somewhat lower level. Because the two stages operate in tandem with each other, their effect is to multiply the signals (or add and subtract in dB's), so that a total of 20 dB of compression and expansion, and thus of noise reduction, is accomplished. Yet simultaneously, at no time is the signal subject to the vagaries of a single compression or expansion action of 20 dB. In other words, the tandem two-level, two-stage configuration provides a much more accurate control of the signal than a single compander circuit would be able to achieve.

Since a single newly developed IC is used for Dolby C noise reduction in this unit, compared with the Dolby B ICs two normally used, better characteristics are achieved.

1. Recording/playback mode and NR mode (OFF/Dolby B/Dolby C) selection is electronic.
2. The circuit does not need adjustment.
3. The over-shoot and limiter level specified for Dolby B and C are adopted to give better transient characteristics.

4. Phase distortion is improved by use of a full-wave rectifying circuit.
5. Almost totally integrated with few external components.
6. With all signal processing performed in a single chip, characteristics in recording and playback are identical.
7. Since the same elements are used for spectral skewing and in the anti-saturation network in both recording and playback, the characteristics are the same.
8. Multiplex buffer amplifier built-in.
9. External semi-fixed resistor allows setting of monitor output level to required level.
10. Since the performance of the unit is not affected by the side chain when noise reduction is switched off, distortion and frequency response do not deteriorate.
11. It can be used as two Dolby B noise reduction circuits.

## Other developments

In addition to two-level processing, Dolby C-type noise reduction incorporates a number of further innovations. Two of these, shown in Figure B as anti-saturation and spectral skewing networks, are carefully calculated frequency response modifications introduced in the encoding (record) process and reciprocally compensated for in the decode (playback) process. Their purpose is two-fold: to further guard against audible side effects, and to ensure the practicality of the system in day-to-day consumer use. The specific benefits of these innovations include the reduction of encode-decode errors and a reduction of upper-middle and high frequency tape saturation and its side effects, such as high frequency losses and inter-modulation distortion. Together with the two-level, two-stage configuration, these new developments result in a 20 dB noise reduction system at least as free of side effects as the 10 dB B-type system, and one which is just as practical in day-to-day use.

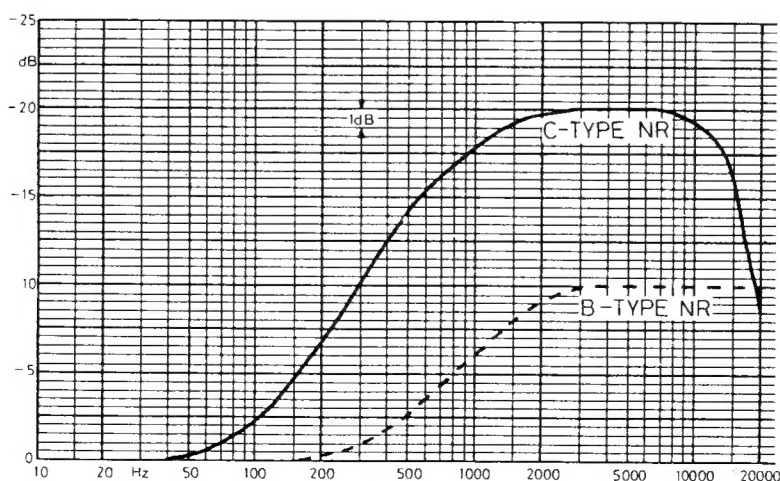


Fig. 4-A Low-level encoding frequency response

These curves, showing the maximum low-level boost imparted by both C-type and B-type noise reduction in the absence of high frequency signals, illustrate some of the similarities and differences between the two systems. Dolby C noise reduction imparts more boost in recording and more cut in playback, thus providing more noise reduc-

tion. The effect also extends about two octaves lower with C-type noise reduction to maintain subjectively uniform noise level across the spectrum. Processing at very low frequencies is not required with either system because low frequency noise is insignificant in properly engineered cassette recorders.

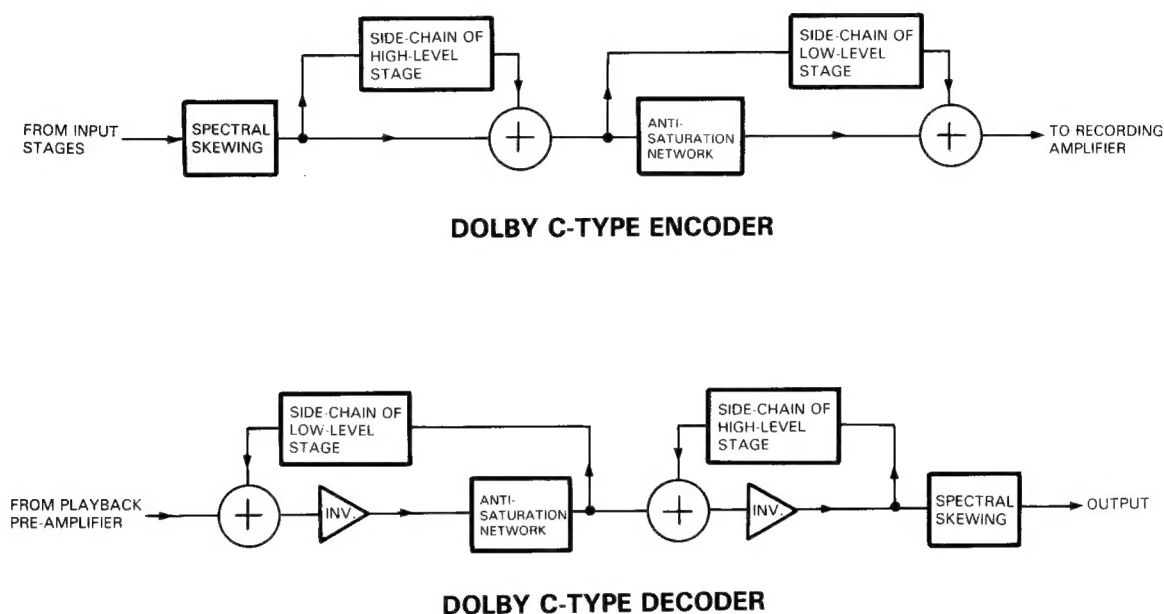


Fig. 4-B Dolby C-type NR block diagram

## Safety Precautions

### ⚠ Safety mark

Safety is very important with this unit. When replacing the parts marked  $\triangle$ , be sure to use only those designated parts. The designated resistors, diodes, transistors become hot in use. When replacing, be sure to secure them with a distance of more than 5 mm from the circuit board. In addition, they are banded together to avoid touching other wiring, recheck this point as well after repair. The wiring of the primary side should be wound more than one and half times, then soldered.

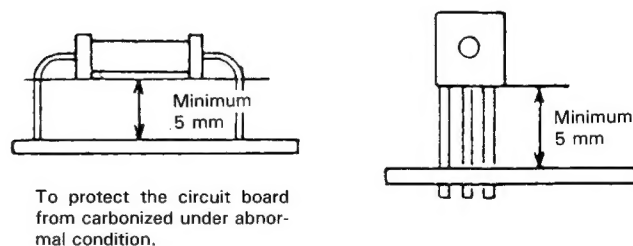


Fig. 5

# Removal of the Main Parts

Observe care in handling the parts since the parts are small in size and the distance between them are short due to a deck design aimed mainly at compactness and high performance.

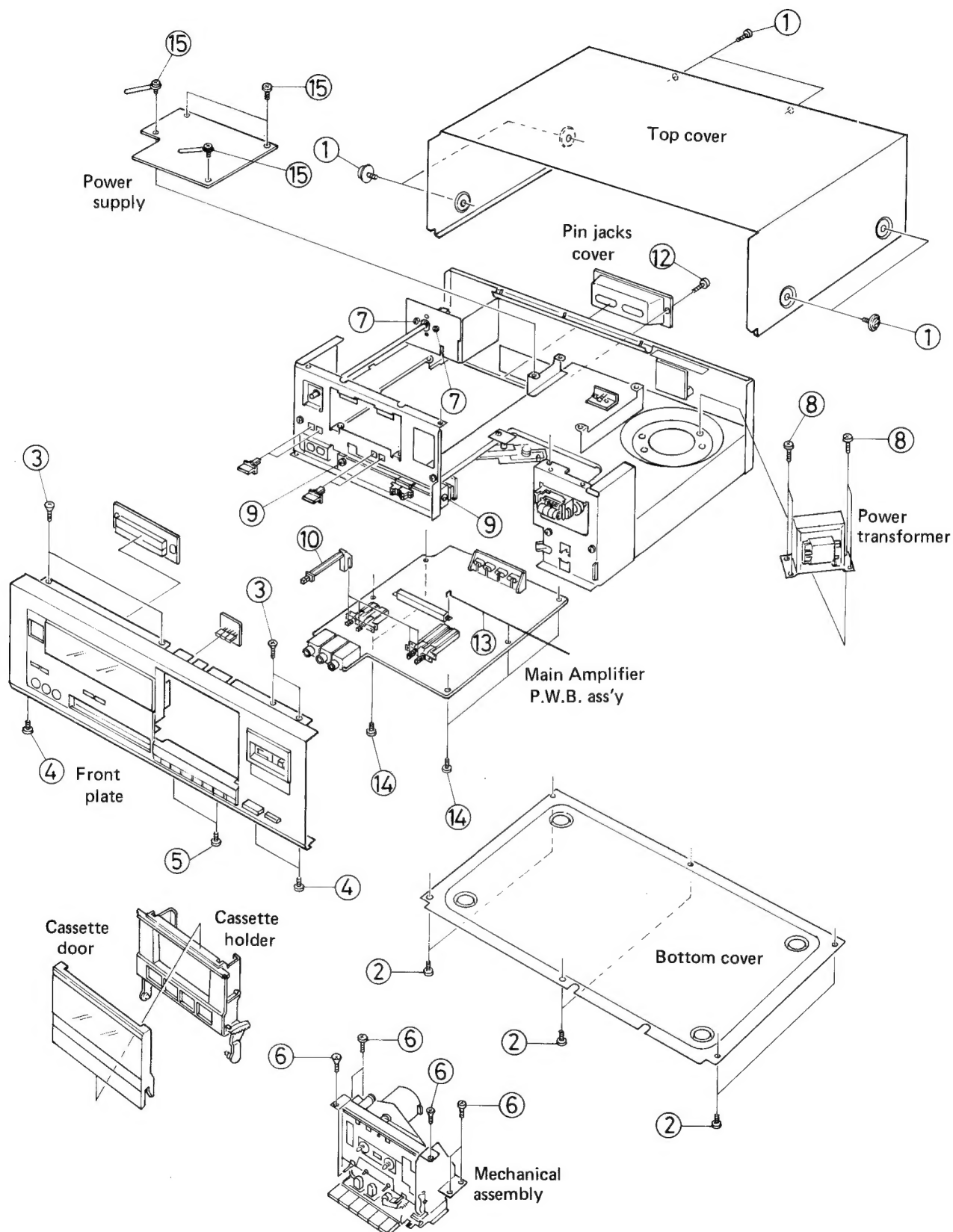


Fig. 6

### Enclosure assembly parts

1. Cassette door  
Push the EJECT button to open the cassette door. Slide off the cassette door upwards to unlock its pawls off both sides.
2. Top cover  
Remove 6 screws (1). (left, right and rear ..... 2 screws on each.)
3. Bottom cover  
Remove 6 screws (2).
4. Front plate assembly  
Remove 6 screws (4 screws (3) on upper side and 2 screws (4) on bottom side).
5. Cassette holder  
Remove 2 screws (5) fastening the door bracket ass'y.

### Mechanical assembly

Remove 6 screws (6) fastening the mechanical ass'y (2 screws on the front bracket, and 4 screws on the chassis.)

### Mechanical parts

The removal methods of mechanical parts are the same as model KD-D20. Please refer to service manual of KD-D20 (No. 4208 page 6).

### Electrical parts

When removing wire clamp (QHX2075-001), cut off it and when clamping wires, use new parts.

1. Power switch  
Remove 2 screws (7) fastening the power switch.
2. Power transformer  
Remove 4 screws (8) fastening the power transformer.
3. Slide knobs (Recording level control)  
Remove 2 screws (9) fastening the blind.
4. Main amplifier P.W. board ass'y
  - 1) Pull off 4 knob holders (10) of tape select switches and NR system switch.
  - 2) Remove a screw (12) fastening PIN jacks cover.
  - 3) Remove the recording switch wire (13)
  - 4) Remove 5 screws (14) fastening the main amplifier P.W. board.
  - 5) Slide down the rear side of main amp. P.W. board and pull off it to rear side.
5. Power supply P.W. board ass'y  
Remove 4 screws (15) fastening the power supply P.W. board

## Dimensions

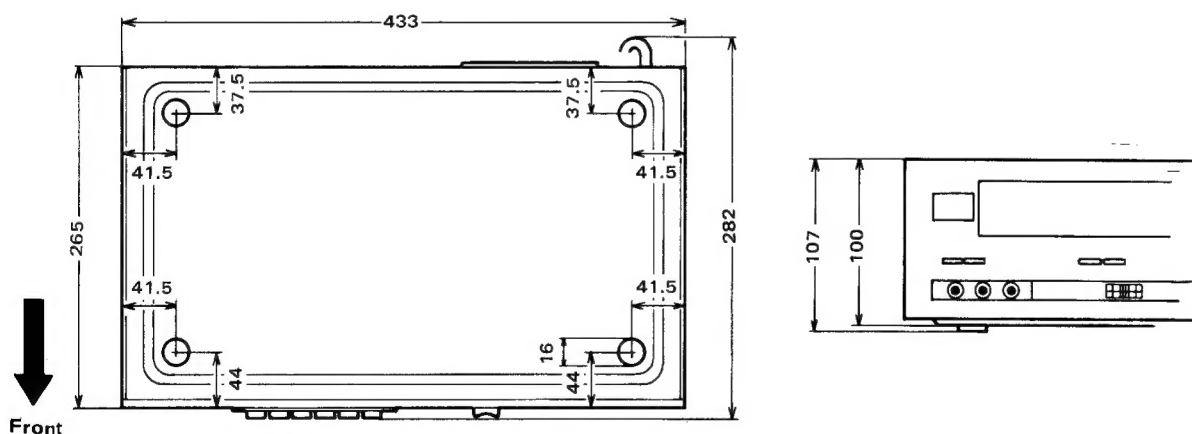


Fig. 7



# Main Adjustments

## [I] Equipment and measuring instruments used for adjustment

### 1. Electrical adjustment

- 1) Electronic voltmeter
- 2) Audio frequency oscillator (range: 50—20 kHz and output 0 dB with impedance 600  $\Omega$ )
- 3) Attenuator
- 4) Standard tapes for REC/PB
 

|                     |   |               |
|---------------------|---|---------------|
| Maxell UD — SF tape | } | or equivalent |
| TDK SA — SA tape    |   |               |
| JVC ME — Metal tape |   |               |
- 5) Reference tapes for playback (JVC Test Tape)
  - VTT-658 (for head azimuth adj.)
  - VTT-656 (for motor speed, wow flutter adj.)
  - VTT-664 (for Reference Level 1 kHz)
  - VTT-675N (for playback frequency response)
- 6) Resistor 600  $\Omega$  (for attenuator matching)

### 2. Mechanical adjustment

- 1) Torque testing cassette gauge, CTG-N.
- 2) Blank tape (C-120) for tape running checker.

## [II] Mechanical adjustment

This adjustment is the same as those of the service manual for PC-3 JW/W/WH/C (No. 1469) or PC-3L/LB (No. 1470).

Please refer to the service manual of PC-3 JW/W/WH/C (No. 1469, page 17) or PC-3L/LB (No. 1470 page 17).

## [III] Electrical adjustments location

Main Amp. P.W. Board (parts ass'y side view)

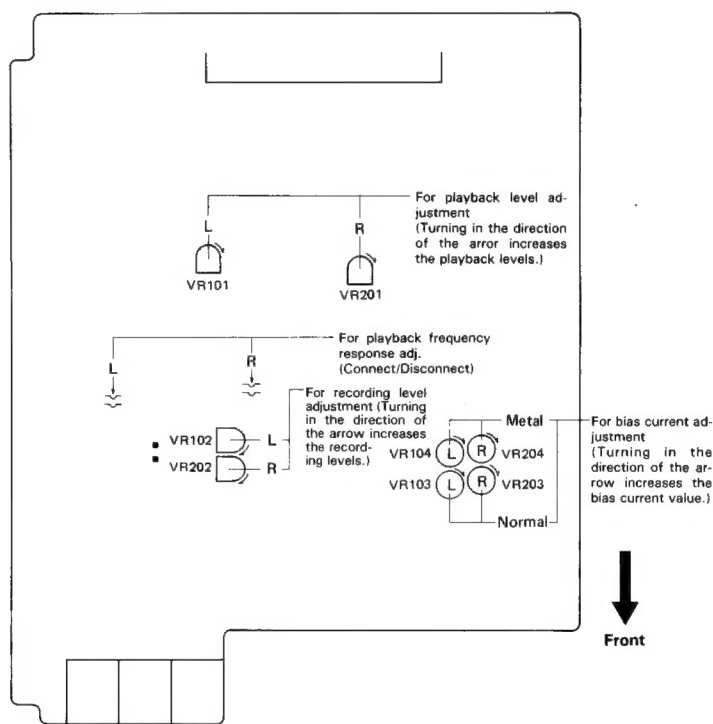


Fig. 8

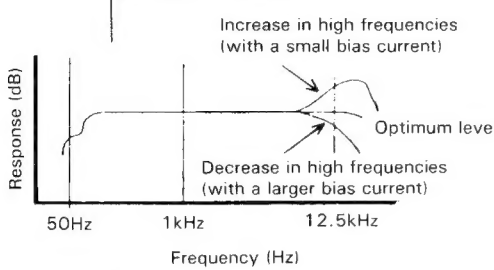
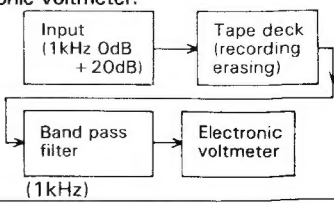
## [IV] Electrical circuit adjustment procedure

In the steps marked by an asterisk (\*), adjustment should be performed, however, only checking is sufficient with steps other than those.

Adjustment should be performed in the order of steps 1, 2, 3,..... Perform this adjustment with the NR SYSTEM switch set to OFF.

| Step | Item                        | Adjustment  | Adjusting point | Standard value  | Remarks   |
|------|-----------------------------|---|-----------------|---|---|
| 1 *  | Playback frequency response | Play back test tape VTT-675N (1 kHz, 10 kHz) for following adjustment.<br>1. Connect/Disconnect C102 or C103 so that 10 kHz signal and 1 kHz signal gains become flat response. | C102<br>C103    | Reference frequency:<br>1 kHz<br>0 $\pm$ 2 dB at 10 kHz | NR SYSTEM: OFF<br>TAPE SELECT: SF/NORM  |
| 2 *  | Adjusting playback level    | 1. Play back the VTT-664 Reference tape (1 kHz) with the tape select switch set to the SF/NORM position.<br>2. Adjust VR101 and VR201 until the LINE OUT becomes about -8 dBs.  | VR101<br>201    | -8 dBs  | This adjustment becomes necessary when a change in playback level results (for example, due to head replacement). |



| Step | Item   | Adjustment  | Adjusting point   | Standard value   | Remarks  |
|------|--|---|---|--|--|
| 3*   | Checking record/playback frequency response          | <p>Record 1 kHz, 50 Hz and 12.5 kHz signals at an input level of 0 dB to -20 dB. Play back the tape.</p> <p>Check to see that the 50 Hz and 12.5 kHz signal output deviations fall within the standard range, using the 1 kHz signal output as a reference.</p>    | <p>For SF/NORM tape;<br/>VR103<br/>203</p> <p>For Metal tape;<br/>VR104<br/>204</p> | <p>Reference frequency;<br/>1 kHz</p> <p>0 ± 3 dB at 50 Hz</p> <p>0 ± 4 dB at 12.5 kHz</p>                       | <p>This checking should be performed for normal tape and for both right and left channels.</p> <ol style="list-style-type: none"> <li>1. Bias current adjustment for a cassette deck should generally be performed referring to the record/playback frequency response. This is because the frequency response of a cassette deck depends more greatly upon the bias current than does that of an open reel deck.</li> <li>2. If the bias current is not properly adjusted, the record and playback characteristics become as shown left.</li> </ol> |
| 4    | Adjusting recording level                            | <ol style="list-style-type: none"> <li>1. Apply a 1 kHz, approx. -10 dB signal to the LINE IN terminals. Adjust the recording level controls until the signal is available at -8 dBs at the LINE OUT terminals.</li> <li>2. After checking to see if the Peak level indicator become 0, record the signal applied to both left and right channels using normal tape.</li> <li>3. Play back the recording part. Perform the recording signal adjustment with VR102 and VR202 so that the peak level indicator become 0.</li> </ol> | VR102<br>202  | 0 VU   | The level difference between left and right channels for SF/NORM tape and metal tape should be less than 1 dB. Perform the adjustment using a normal tape, level difference between recording and playback for metal tape, should be less than 1.5 dB, and that between left and right channels should also be less than 1 dB.   |
| 5    | Checking record/playback signal distortion           | <ol style="list-style-type: none"> <li>1. Record a 1 kHz, -8 dBs signal to LINE IN terminals and perform recording with the peak level indicator become 0.</li> <li>2. Play back the recorded part. Check the output with a distortion meter to see if the value conforms to the standard value.</li> </ol>   |   | <p>SF/NORM tape; Less than 2.5%</p> <p>SA/CrO<sub>2</sub> tape; Less than 3%</p> <p>Metal tape; Less than 2%</p> | Be sure to perform this adjustment following bias current and recording level adjustments.   |
| 6    | Checking signal to noise ratio in recording/playback | <ol style="list-style-type: none"> <li>1. Record a 1 kHz, 0 dB signal. Stop the input by disconnecting from the terminal to perform nonsignal recording.</li> <li>2. Play back the recorded part. Measure the 0 dB recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value.</li> </ol>  |   | SF/NORM, and Metal tapes; More than 42 dB  |  |
| 7    | Checking erasing coefficient                         | <ol style="list-style-type: none"> <li>3. Apply a 1 kHz signal to the LINE IN terminals. Adjust the recording level controls until the peak level indicator become 0.</li> <li>2. Perform recording with the signal enhanced by 20 dB.</li> <li>3. Erase a part of the recording.</li> <li>4. Measure the output difference between the erased part and nonerased part to compare with an electronic voltmeter.</li> </ol>  |   | More than 65 dB  | <p>For the measuring, connect a band pass filter between the deck and the electronic voltmeter.</p>   |
| 8.   | Check Auto stop                                      | Hold less than $1 +0$<br>$-0.5$ mm gap to the magnet from the hall IC.  |   |  |  |



Wiring Connections

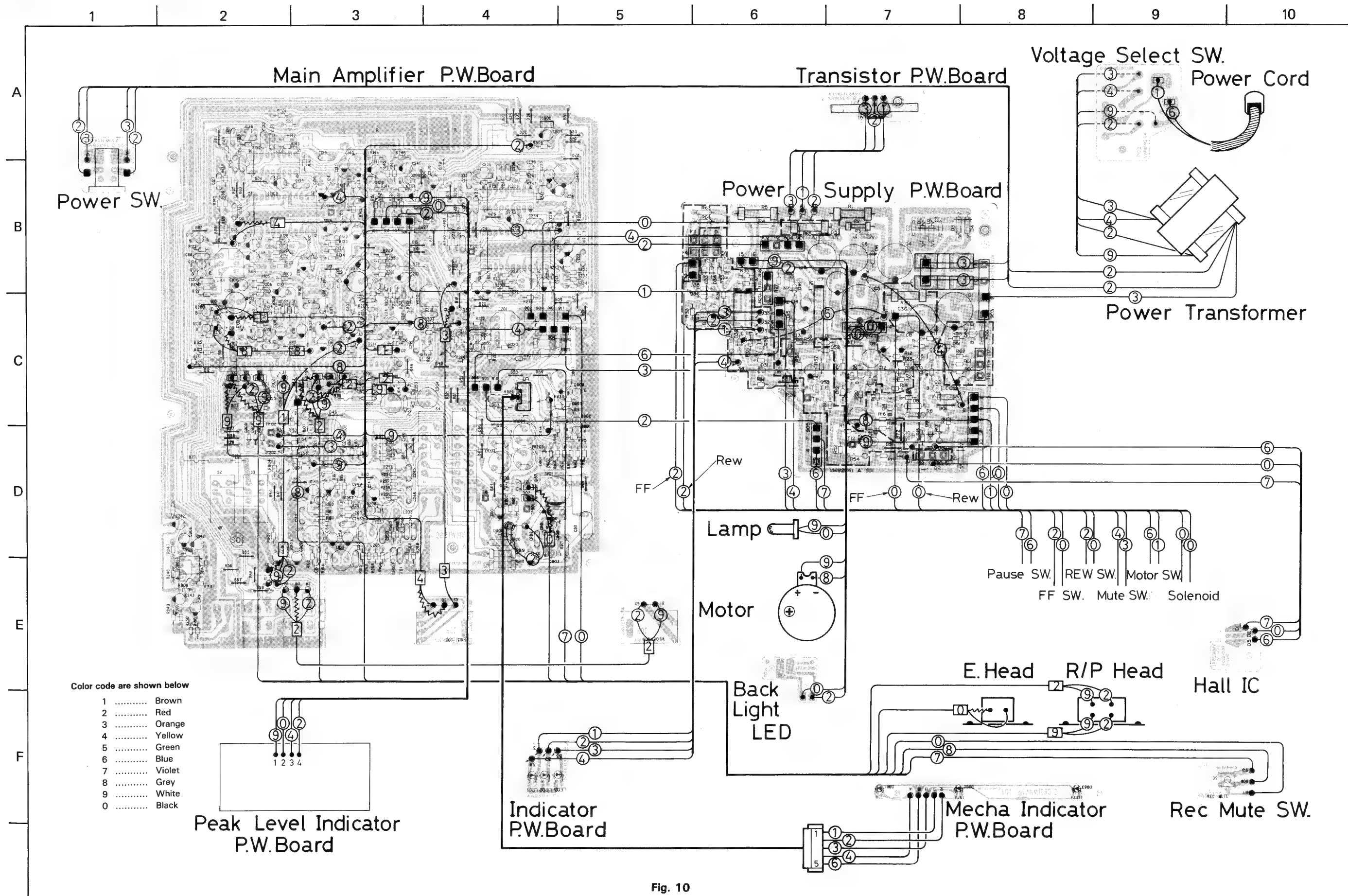
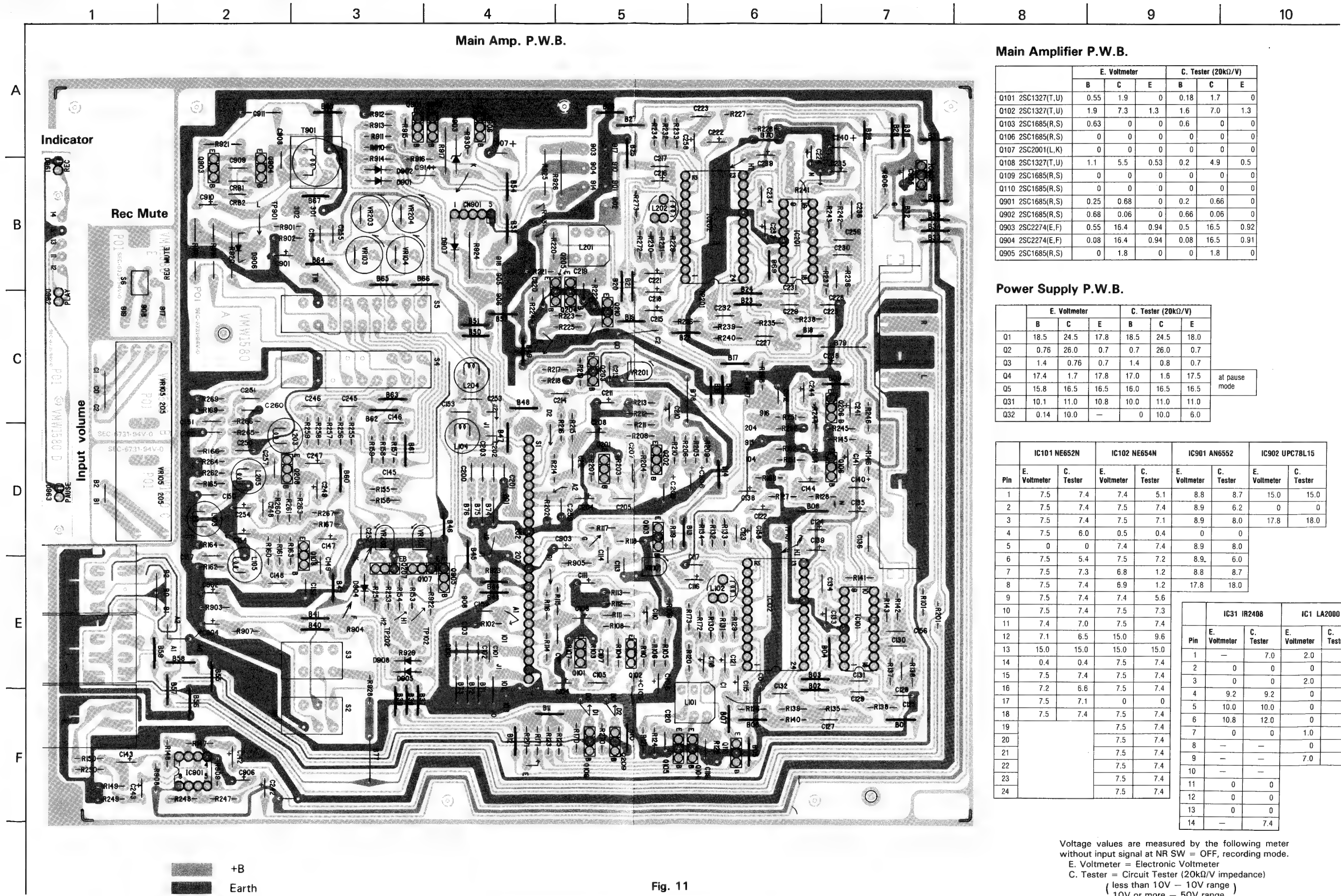


Fig. 10



Main Amp. P.W. Board Parts



# Standard Schematic Diagram of KD-D30 (Main Amplifier Circuit)

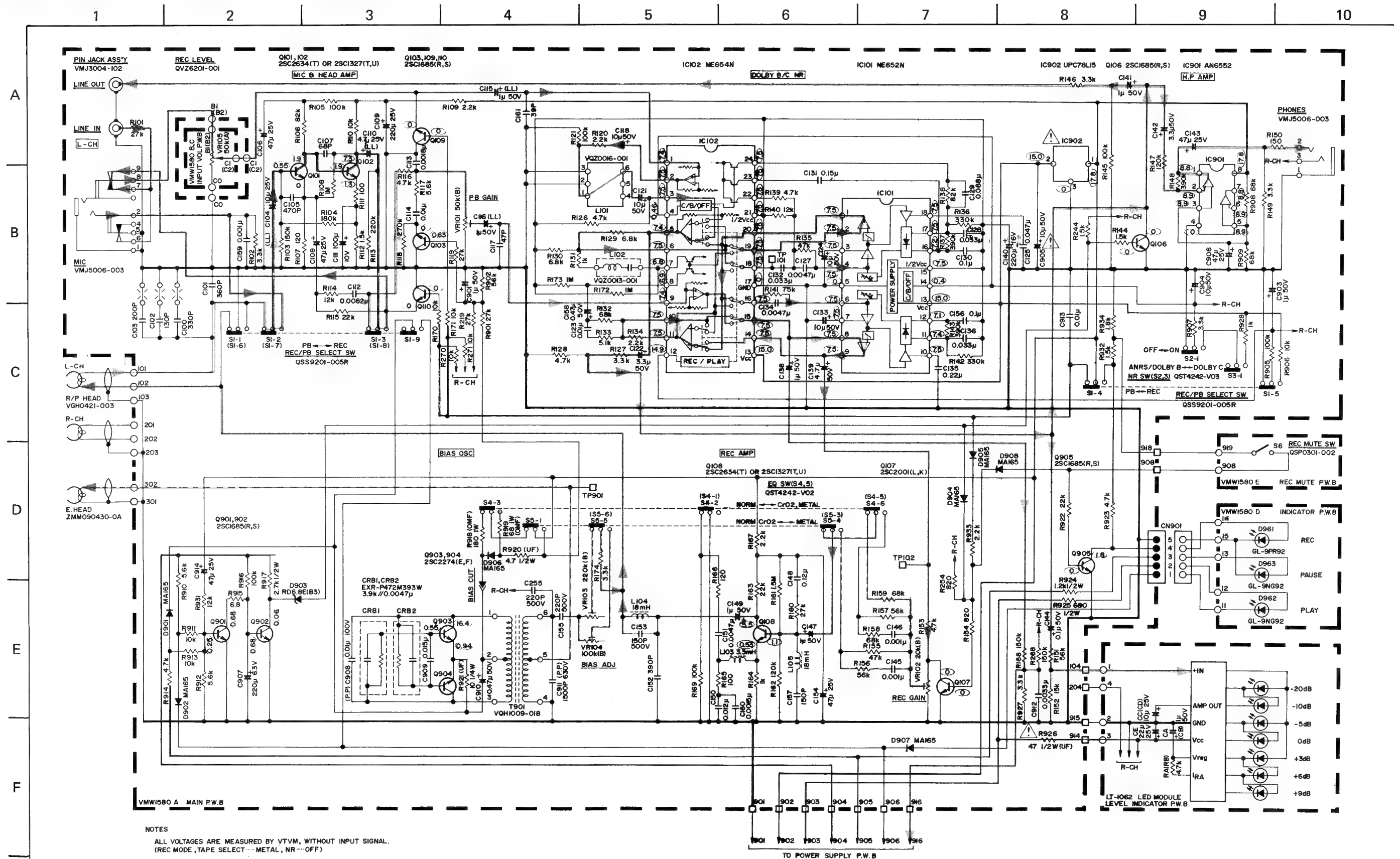
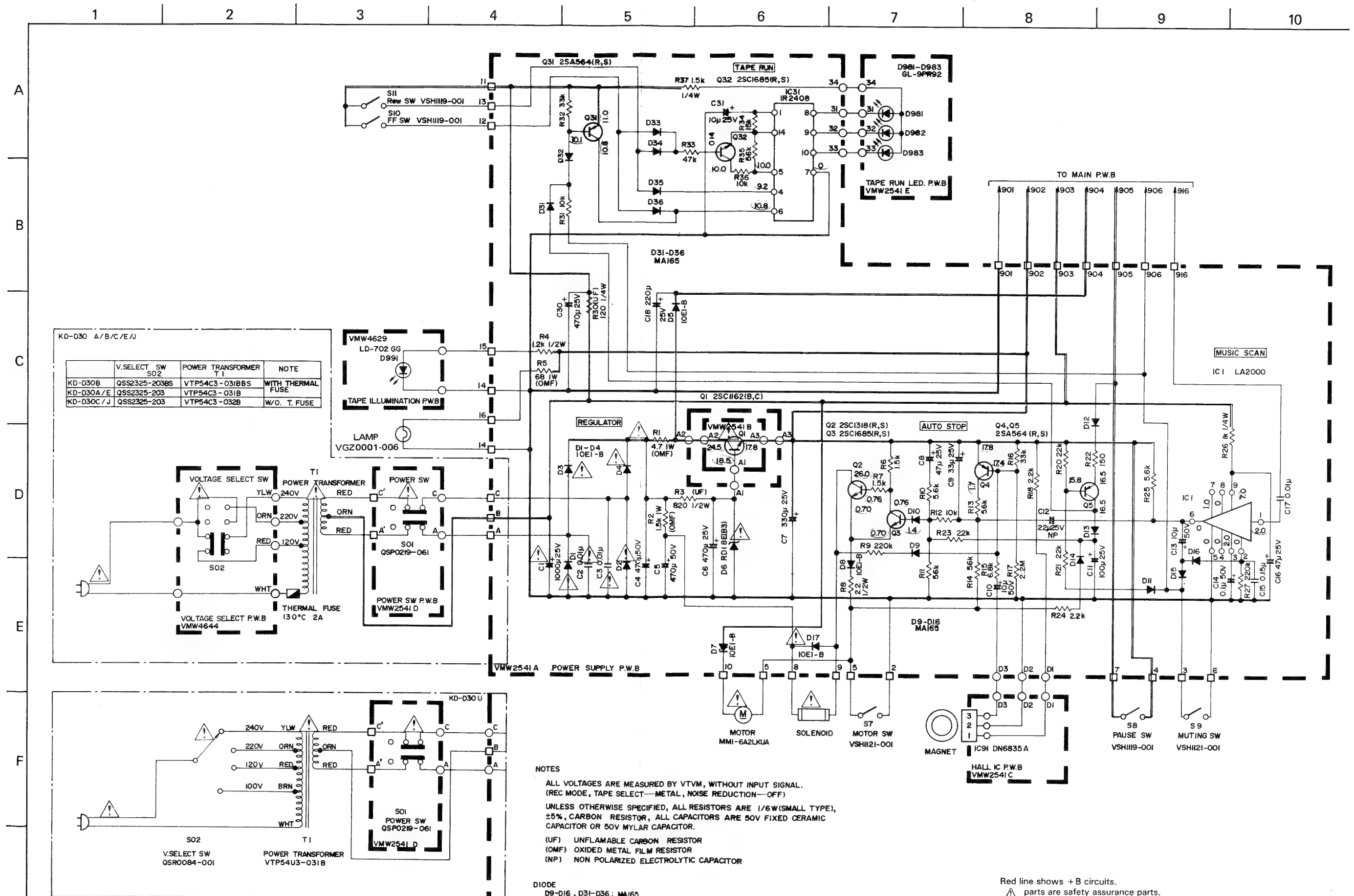


Fig. 12

Blue line shows the signal at playback.  
Red line shows the signal at recording and +B circuits.  
△ parts are safety assurance parts.  
When replacing those parts, make sure to use the specified one.

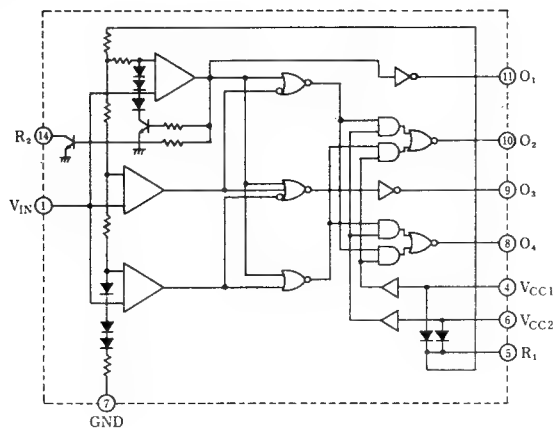
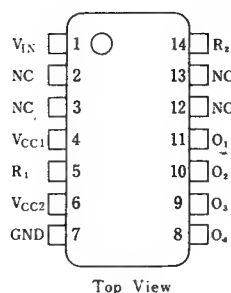
## Standard Schematic Diagram of KD-D30 (Mecha. Control Circuit)





## ICs

IC31 IR-2408 Tape run



## Power Supply P.W. Board Parts

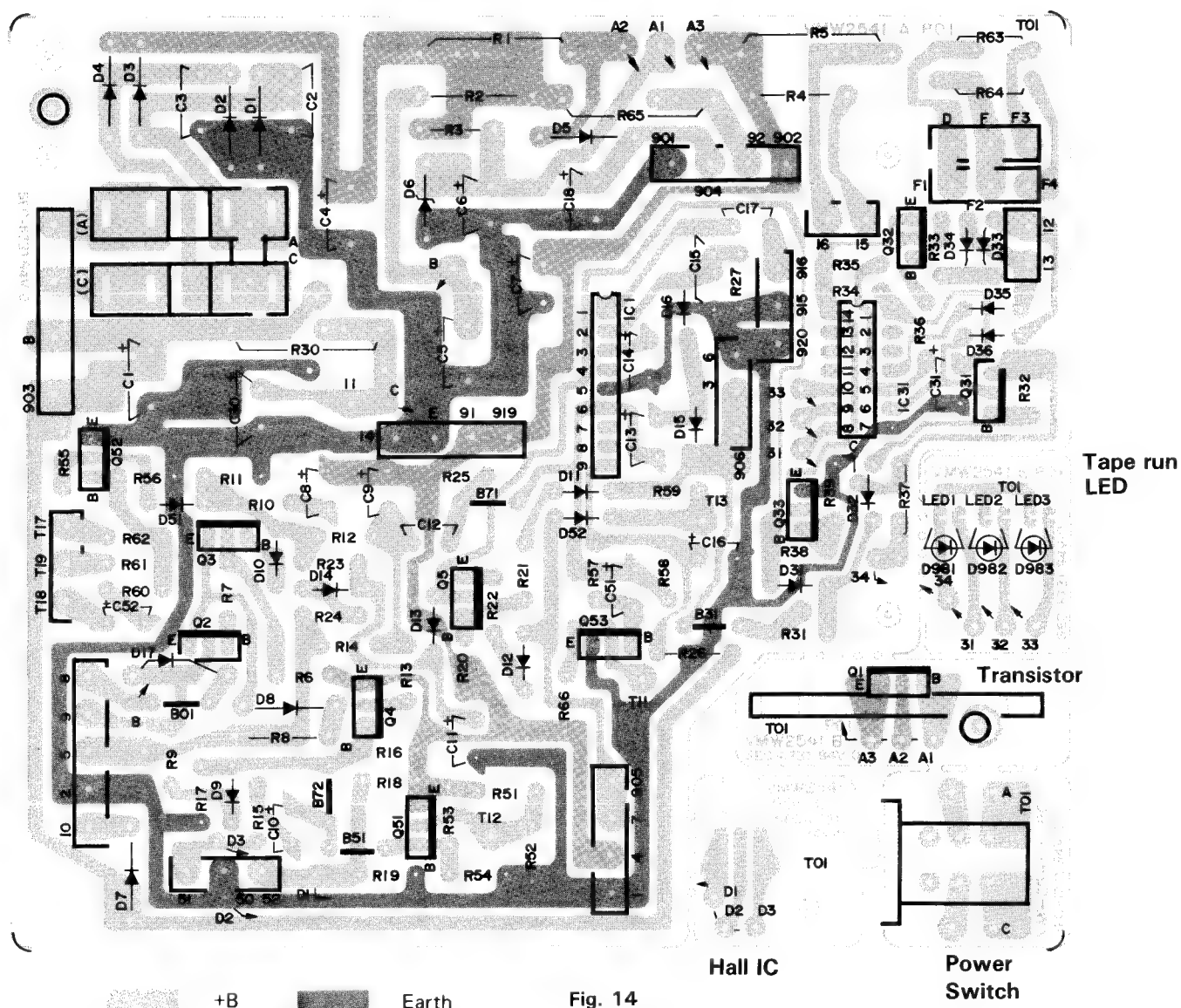


Fig. 14



## Power Supply P.W. Board Parts List

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Ref. No.         | △ | Parts No.      | Parts Name       | Remarks      | Q'ty |
|------------------|---|----------------|------------------|--------------|------|
| R1               | △ | VMW2541-***A   | P.W. Board       |              | 1    |
| R2               |   | QRG019J-4R7    | O.M.F. Resistor  | 4.7 Ω 1 W    | 1    |
| R3               |   | QRG019J-152    | "                | 1.5 kΩ 1 W   | 1    |
| R4               |   | QRD129J-821S   | C. Resistor      | 820 Ω 2 W    | 1    |
| R5               |   | QRD121J-122    | "                | 1.2 kΩ 1/2W  | 1    |
|                  |   | QRG019J-680    | O.M.F. Resistor  | 68 Ω 1 W     | 1    |
| R6,7             |   | QRD161J-152    | C. Resistor      | 1.5 kΩ 1/6 W | 2    |
| R8               |   | QRD121J-2R2    | "                | 2.2 Ω 1/2 W  | 1    |
| R9               |   | QRD161J-224    | "                | 220 kΩ 1/6 W | 1    |
| R10,24,25        |   | " -562         | "                | 5.6 kΩ "     | 3    |
| R11,14,35        |   | " -563         | "                | 56 kΩ "      | 3    |
| R12,13,31,36     |   | " -103         | "                | 10 kΩ "      | 4    |
| R15              |   | " -682         | "                | 6.8 kΩ "     | 1    |
| R16              |   | " -333         | "                | 33 kΩ "      | 1    |
| R17              |   | QRD143J-225S   | "                | 2.2 MΩ 1/4 W | 1    |
| R18              |   | QRD161J-222    | "                | 2.2 kΩ 1/6 W | 1    |
| R19              |   | " -472         | "                | 4.7 kΩ "     | 1    |
| R20,21,23        |   | " -223         | "                | 22 kΩ "      | 3    |
| R22              |   | " -151         | "                | 150 Ω "      | 1    |
| R26              |   | QRD147J-102S   | "                | 1 kΩ 1/4 W   | 1    |
| R27              |   | QRD161J-224    | "                | 220 kΩ 1/6 W | 1    |
| R30              |   | QRD149J-121S   | O.M.F. Resistor  | 120 Ω 2 W    | 1    |
| R32              |   | QRD161J-333    | C. Resistor      | 33 kΩ 1/6 W  | 1    |
| R33              |   | " -473         | "                | 47 kΩ "      | 1    |
| R34              |   | " -153         | "                | 15 kΩ "      | 1    |
| R37              |   | QRD147J-152S   | "                | 1.5 kΩ 1/4 W | 1    |
| C1               | △ | QET41ER-108    | E. Capacitor     |              | 1    |
| C2,3             | △ | QCF11HP-103    | F.C. Capacitor   |              | 2    |
| C4,5,6,7         |   | QET41HR-477    | E. Capacitor     |              | 4    |
| C8               |   | QET61ER-476    | "                |              | 1    |
| C9               |   | QET61ER-336    | "                |              | 1    |
| C10,13           |   | QET61HR-106    | "                |              | 2    |
| C11              |   | QET61ER-107    | "                |              | 1    |
| C12              |   | QEN41EM-226    | N.P.E. Capacitor |              | 1    |
| C14              |   | QET41HR-104N   | E. Capacitor     |              | 1    |
| C15              |   | QFM41HJ-154    | Mylar Capacitor  |              | 1    |
| C16              |   | QET61ER-476    | E. Capacitor     |              | 1    |
| C17              |   | QFN31HJ-103    | Mylar Capacitor  |              | 1    |
| C18              |   | QET41HR-227N   | E. Capacitor     |              | 1    |
| C30              |   | QET41ER-477N   | "                |              | 1    |
| C31              |   | QET41HR-106    | "                |              | 1    |
| IC1              |   | LA2000         | IC               |              | 1    |
| IC31             |   | IR2408         | "                |              | 1    |
| Q2               |   | 2SC1318(R,S)   | Si. Transistor   |              | 1    |
| Q3               |   | 2SC1685(R,S)PH | "                |              | 1    |
| Q4,5,31          |   | 2SA564(R,S)    | "                |              | 3    |
| Q32              |   | 2SC1685(R,S)PH | "                |              | 1    |
| D1 ~ 4,5,7,8     | △ | 10E1-B         | Si Diode         |              | 7    |
| D6               | △ | RD20E(E3)      | Zener Diode      |              | 1    |
| D9 ~ 16, 31 ~ 36 |   | 1SS119-14TE    | Si Diode         | MA165-TA5    | 14   |
| D17              | △ | 10E1-B         | "                |              | 1    |

**Main Amp. P.W. Board Parts List**

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Ref. No.  | △ | Parts No.                   | Parts Name                | Remarks     | Q'ty   |
|---|---|-----------------------------|---------------------------|-------------|--------|
| R101,201,119<br>219,160,260<br>901                        |   | VMW1580-***A<br>QRD161J-273 | P.W. Board<br>C. Resistor | 27 kΩ 1/6 W | 1<br>7 |
| R102,202,127<br>227,146,246<br>149,249,907                |   | " -332                      | "                         | 3.3 kΩ "    | 9      |
| R103,203,105<br>205,121,221<br>145,245,169<br>269,905,916 |   | " -104                      | "                         | 100 kΩ "    | 12     |
| R104,204  |   | " -184                      | "                         | 180 kΩ "    | 2      |
| R106,206,138<br>238                                       |   | " -823                      | "                         | 82 kΩ "     | 4      |
| R107,207  |   | " -121                      | "                         | 120 Ω "     | 2      |
| R108,208,172  |   | " -105                      | "                         | 1 MΩ "      | 6      |
| 272,173,273   |   | "                           | "                         |             |        |
| R109,209,120  |   | " -222                      | "                         | 2.2 kΩ "    | 9      |
| 220,134,234<br>167,267,929                                |   | "                           | "                         |             |        |
| R110,210,170  |   | " -103                      | "                         | 10 kΩ "     | 10     |
| 270,171,271<br>906,911,913<br>931                         |   | "                           | "                         |             |        |
| R111,211,166<br>266                                       |   | " -101                      | "                         | 100 Ω "     | 4      |
| R112,212,144<br>244                                       |   | " -152                      | "                         | 1.5 kΩ "    | 4      |
| R113,213  |   | " -224                      | "                         | 220 kΩ "    | 2      |
| R114,214,140<br>240                                       |   | " -123                      | "                         | 12 kΩ "     | 4      |
| R115,215,163<br>263                                       |   | " -223                      | "                         | 220 kΩ "    | 4      |
| R116,216,126<br>226,128,228<br>139,239,153<br>253,914,923 |   | " -472                      | "                         | 4.7 kΩ "    | 12     |
| R117,217,910<br>912                                       |   | " -562                      | "                         | 5.6 kΩ "    | 4      |
| R118,218  |   | " -274                      | "                         | 270 kΩ "    | 2      |
| R129,229,130<br>230                                       |   | " -682                      | "                         | 6.8 kΩ "    | 4      |
| R131,231,164<br>264,928                                   |   | " -102                      | "                         | 1 kΩ "      | 5      |
| R132,232,159<br>259,908,909                               |   | " -683                      | "                         | 68 kΩ "     | 6      |
| R133,233  |   | " -512                      | "                         | 5.1 kΩ "    | 2      |
| R135,235,157<br>257,922                                   |   | " -473                      | "                         | 47 kΩ "     | 5      |
| R136,236,142<br>242                                       |   | " -334                      | "                         | 330 kΩ "    | 4      |
| R137,237,143<br>243,148,248                               |   | " -394                      | "                         | 390 kΩ "    | 6      |
| R141,241  |   | " -753                      | "                         | 75 kΩ "     | 2      |
| R147,247,162<br>262                                       |   | " -124                      | "                         | 120 kΩ "    | 4      |
| R150,250  |   | " -151                      | "                         | 150 Ω "     | 2      |
| R151,251,902  |   | " -563                      | "                         | 56 kΩ "     | 3      |
| R152,252  |   | " -153                      | "                         | 15 kΩ "     | 2      |
| R154,254  |   | " -821                      | "                         | 820 Ω "     | 2      |
| R155,255  |   | " -393                      | "                         | 39 kΩ "     | 2      |
| R156,256,158<br>258                                       |   | " -333                      | "                         | 33 kΩ "     | 4      |

| Ref. No.  | △ | Parts No.    | Parts Name              | Remarks   |       | Q'ty |
|---|---|--------------|-------------------------|-----------|-------|------|
| R161,261  |   | QRD143J-155S | C. Resistor             | 1.5 MΩ    | 1/6 W | 2    |
| R165,265  |   | QRD161J-560  | "                       | 56 Ω      | "     | 2    |
| R168,268  |   | " -154       | "                       | 150 kΩ    | "     | 2    |
| R915  |   | " -6R8       | "                       | 6.8 Ω     | "     | 1    |
| R917  |   | QRD121J-272  | "                       | 2.7 kΩ    | 1/2 W | 1    |
| R918  |   | QRG019J-181  | O.M.F. Resistor         | 180 Ω     | 1W    | 1    |
| R919  |   | " -680       | "                       | 68 Ω      | "     | 1    |
| R920  |   | QRD129J-4R7  | C. Resistor             | 4.7 Ω     | 1/2 W | 1    |
| R921  |   | QRD149J-100S | "                       | 10 Ω      | 1/4 W | 1    |
| R924  |   | QRD121J-122  | "                       | 1.2 kΩ    | 1/2 W | 1    |
| R925  |   | " -681       | "                       | 680 Ω     | "     | 1    |
| R926  |   | QRG019J-680  | O.M.F. Resistor         | 68 Ω      | 1 W   | 1    |
| C100,200  |   | QCS11HJ-331  | F.C. Capacitor          | 330 pF    | 50 V  | 2    |
| C101,201  |   | " -361       | "                       | 360 pF    | "     | 2    |
| C102,202  |   | " -131       | "                       | 130 pF    | "     | 2    |
| C103,203  |   | " -201       | "                       | 200 pF    | "     | 2    |
| C104,204  |   | QEB41EM-106  | E. Capacitor (Low Leak) | 10 μF     | 25 V  | 2    |
| C105,205  |   | QCS11HJ-471  | F.C. Capacitor          | 470 pF    | 50 V  | 2    |
| C106,206,108<br>208,143,243<br>154,254,906        |   | QET41ERT-476 | E. Capacitor            | 47 μF     | 25 V  | 9    |
| C107,207  |   | QCS11HJ-680  | F.C. Capacitor          | 68 pF     | 50 V  | 2    |
| C109,209  |   | QET41ER-227N | E. Capacitor            | 220 μF    | 25 V  | 2    |
| C110,210  |   | QEB41EM-475  | E. Capacitor (Low Leak) | 4.7 μF    | "     | 2    |
| C111,211  |   | QET41AR-107  | E. Capacitor            | 100 μF    | 10 V  | 2    |
| C112,212  |   | QFN41HJ-822  | M. Capacitor            | 0.0082 μF | 50 V  | 2    |
| C113,213  |   | " -182       | "                       | 0.0018 μF | "     | 2    |
| C114,214,123<br>223                               |   | " -103       | "                       | 0.01 μF   | "     | 4    |
| C115,215,116<br>216                               |   | QEB41HM-105  | E. Capacitor (Low Leak) | 1 μF      | 50 V  | 4    |
| C117,217  |   | QCS11HJ-470  | F.C. Capacitor          | 47 pF     | "     | 2    |
| C118,218,121<br>221,124,224<br>133,233,904<br>905 |   | QET41HR-106N | E. Capacitor            | 10 μF     | "     | 10   |
| C122,222,142<br>242                               |   | " -335N      | "                       | 3.3 μF    | "     | 4    |
| C125,225  |   | QFN41HJ-473  | M. Capacitor            | 0.047 μF  | "     | 2    |
| C127,227,134<br>234                               |   | " -472       | "                       | 0.0047 μF | "     | 4    |
| C128,228,132<br>232,136,236                       |   | " -333       | "                       | 0.033 μF  | "     | 6    |
| C129,229  |   | " -683       | "                       | 0.068 μF  | "     | 2    |
| C130,230,156<br>256                               |   | " -104       | "                       | 0.01 μF   | "     | 4    |
| C131,231  |   | " -154       | "                       | 0.15 μF   | "     | 2    |
| C135,235  |   | QEB41HM-224  | E. Capacitor (Low Leak) | 0.22 μF   | "     | 2    |
| C138,238,141<br>241,149,249<br>901,903            |   | QET41HR-105  | E. Capacitor            | 1 μF      | "     | 8    |
| C139,239  |   | " -475N      | "                       | 4.7 μF    | "     | 2    |
| C140,240  |   | QET41CR-227N | "                       | 220 μF    | 16 V  | 2    |
| C144,244  |   | QET41HR-104N | "                       | 0.1 μF    | 50 V  | 2    |
| C145,245  |   | QFN41HJ-122  | M. Capacitor            | 0.0012 μF | "     | 2    |
| C146,246,160<br>260                               |   | QFN41HJ-152  | M. Capacitor            | 0.0015 μF | 50 V  | 4    |
| C147,247  |   | QET41HR-105  | E. Capacitor            | 1 μF      | "     | 2    |
| C148,248  |   | QFN41HJ-124  | M. Capacitor            | 0.12 μF   | "     | 2    |
| C150,250,909                                      |   | " -153       | "                       | 0.015 μF  | "     | 3    |
| C151,251  |   | " -392       | "                       | 0.0039 μF | "     | 2    |
| C152,252  |   | QCS11HJ-391  | C. Capacitor            | 390 pF    | "     | 2    |
| C153,253  |   | QCS12HJ-151  | "                       | 150 pF    | 500 V | 2    |

| Ref. No.      | △ | Parts No.      | Parts Name     | Remarks        |       | Q'ty |
|---------------|---|----------------|----------------|----------------|-------|------|
| C155,255      |   | QCY12HK-221    | C. Capacitor   | 220 pF         | 500 V | 2    |
| C157,257      |   | QCS11HJ-151    | "              | 150 pF         | 50 V  | 2    |
| C158,258,910  |   | QET41HR-474N   | E. Capacitor   | 0.47 $\mu$ F   | "     | 3    |
| C159,259      |   | QFN41HJ-102    | M. Capacitor   | 0.001 $\mu$ F  | "     | 2    |
| C907          |   | QET40JR-227N   | E. Capacitor   | 220 $\mu$ F    | 6.3 V | 1    |
| C908          |   | QFP82AJ-103    | P.P. Capacitor | 0.01 $\mu$ F   | 100 V | 1    |
| C911          |   | QFP82XJ-152    | "              | 0.0015 $\mu$ F |       | 1    |
| C912          |   | QFN41HJ-122    | M. Capacitor   | 0.0012 $\mu$ F | 50 V  | 1    |
| C914          |   | QET41ER-336N   | E. Capacitor   | 33 $\mu$ F     | 25 V  | 1    |
| CRB1,2        |   | EXR-P472M393W  | C.R. Block     |                |       | 2    |
| VR101,201     |   | QVP8A0B-054    | V. Resistor    | 50 k $\Omega$  |       | 2    |
| VR102,202     |   | " -024         | "              | 20 k $\Omega$  |       | 2    |
| VR103,203,104 |   | QVP4A0B-224    | "              | 220 k $\Omega$ |       | 4    |
| 204           |   |                |                |                |       |      |
| L101,201      |   | VQZ0016-001    | Filter         |                |       | 2    |
| L102,202      |   | VQZ0013-001    | "              |                |       | 2    |
| L103,203      |   | VQP0001-332S   | Inductor       |                |       | 2    |
| L104,204,105  |   | " -183S        | "              |                |       | 4    |
| 205           |   |                |                |                |       |      |
| T901          |   | VQH1009-018    | OSC Coil       |                |       | 1    |
|               |   | VYH4514-002    | Shield Case    |                |       | 1    |
| IC101,201     |   | NE652N         | IC             | Dolby          |       | 2    |
| IC102,202     |   | NE654N         | "              | "              |       | 2    |
| IC901         |   | AN6552         | "              |                |       | 1    |
| IC902         | △ | UPC78L15       | "              |                |       | 1    |
| Q101,201,102  |   | 2SC2634(T)     | Si. Transistor |                |       | 6    |
| 202,108,208   |   |                |                |                |       |      |
| Q103,203,106  |   | 2SC1685(R,S)PH | "              |                |       | 11   |
| 206,109,209   |   |                |                |                |       |      |
| 110,210,901   |   |                |                |                |       |      |
| 902,905       |   |                |                |                |       |      |
| Q107,207      |   | 2SC2001(L,K)   | "              |                |       | 2    |
| Q903,904      |   | 2SC2274(E,F)   | "              |                |       | 2    |
| D901,902      |   | 1SS119-14TE    | Si. Diode      | or MA165-TA5   |       | 7    |
| 904 ~ 908     |   |                |                |                |       |      |
| D903          |   | RD6.8E(B3)     | Zener Diode    |                |       | 1    |
| S1            |   | QSS9201-005R   | Slide Switch   | for REC/PB     |       | 1    |
| S2,3          |   | QST4242-V03    | Push Switch    | for NR         |       | 1    |
| S4,5          |   | " -V02         | "              | for EQ         |       | 1    |
|               |   | VMJ5006-003    | Jack Ass'y     | for MIC & H.P  |       | 1    |
|               |   | VMJ3004-102    | PIN Jack Ass'y |                |       | 1    |
| CN901         |   | QMV5005-005    | Plug Ass'y     |                |       | 1    |

# Other P.W. Board Parts

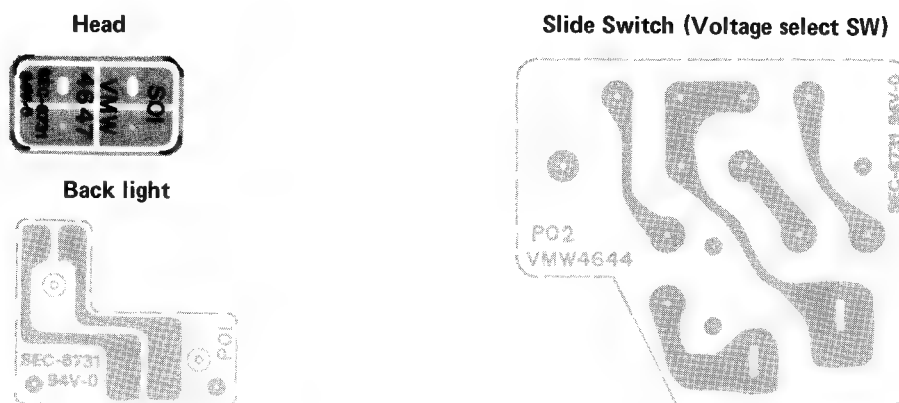


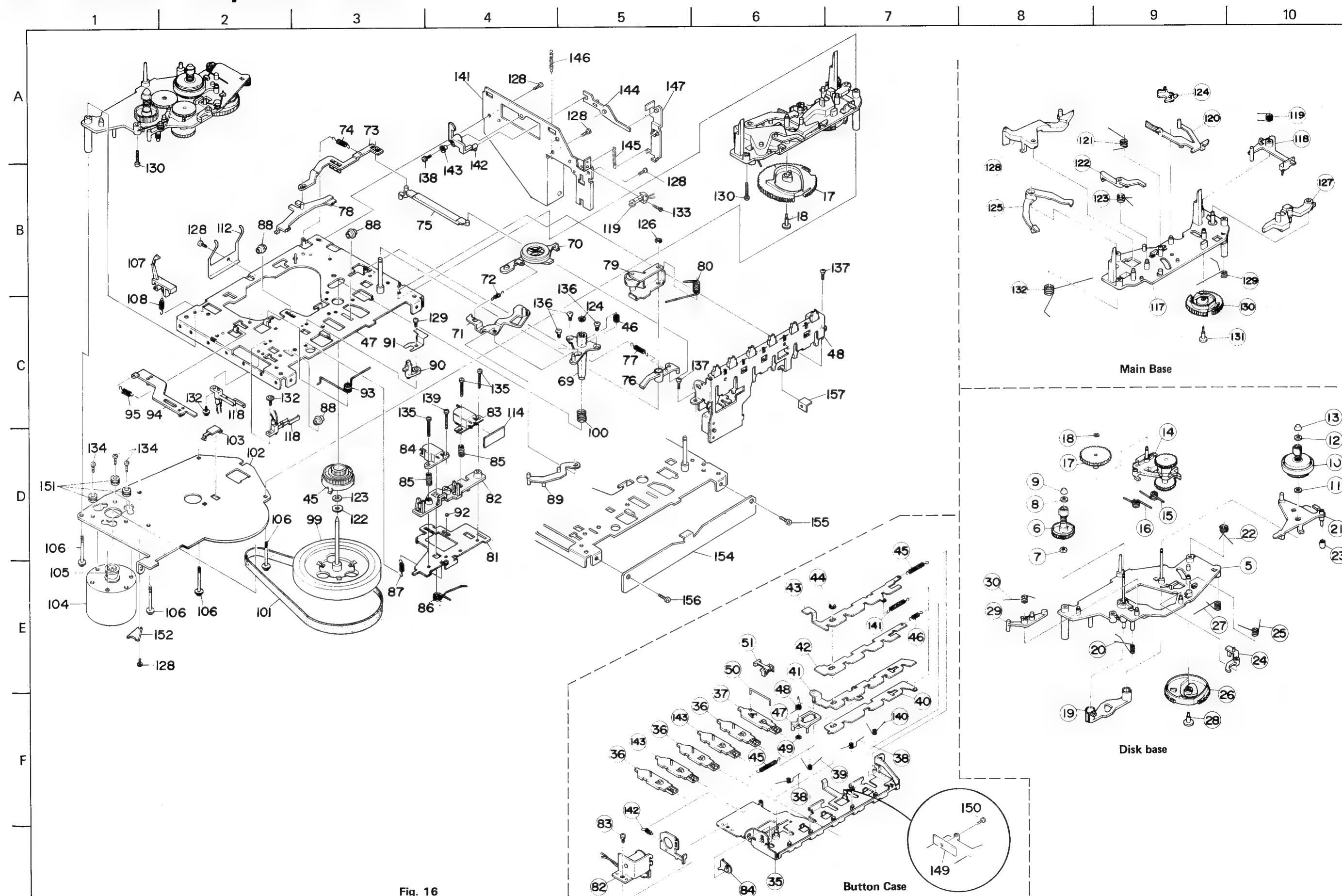
Fig. 15

## Other P.W. Board Parts List

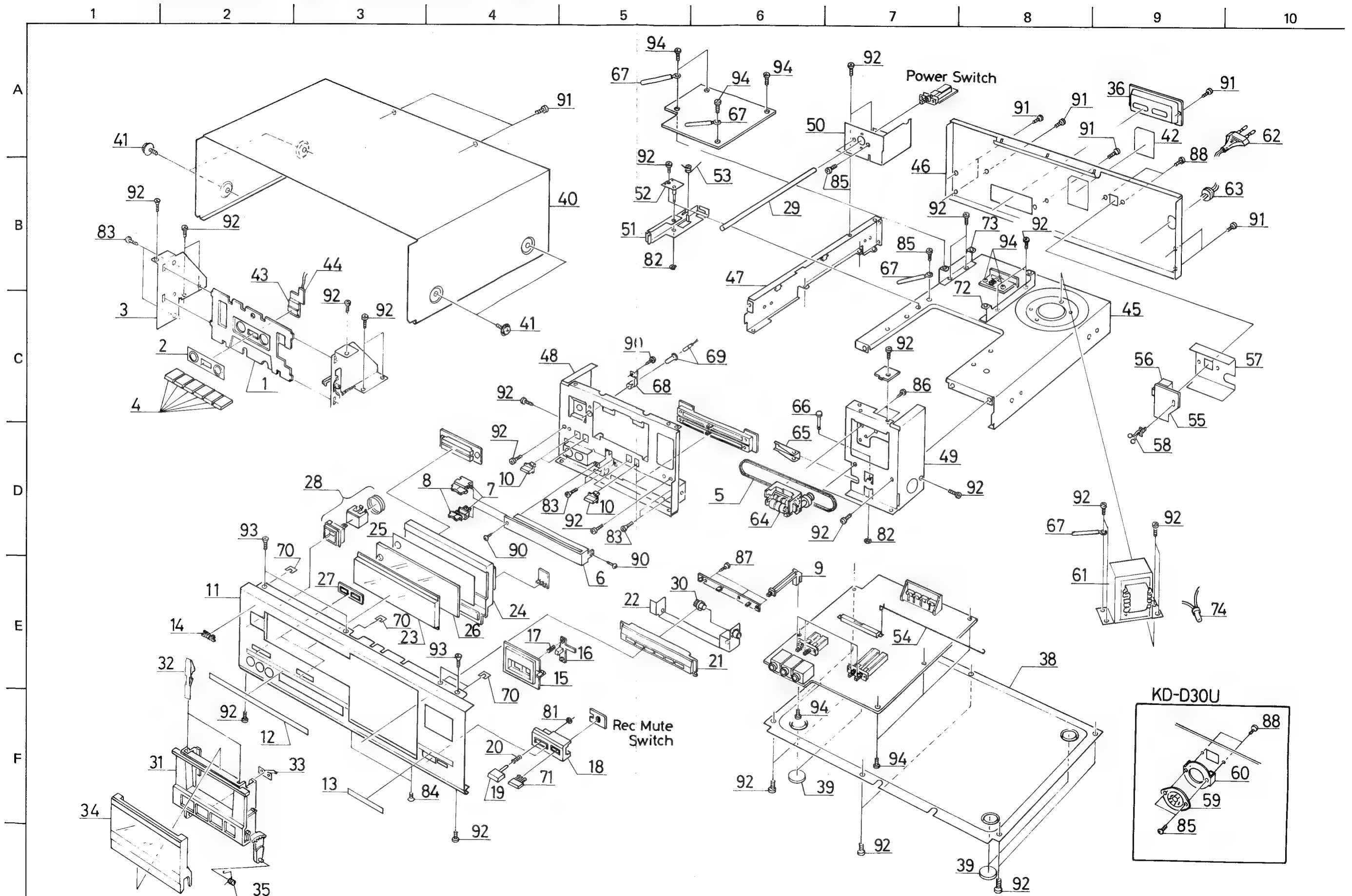
△ parts are safety assurance parts.  
When replacing those parts, make sure to use the specified one.

| Ref. No.                | △ | Parts No.             | Parts Name        | Remarks                   | Q'ty   |
|-------------------------|---|-----------------------|-------------------|---------------------------|--------|
| (R/P Head)              |   | VMW4647-001           | P.W. Board        | for R/P Head              | 1      |
| (LED)                   |   | VMW4629-001<br>LD-702 | P.W. Board<br>LED |                           | 1<br>1 |
| (Voltage select switch) |   | VMW4644-002           | P.W. Board        |                           | 1      |
| S02                     | △ | VKS4354-001           | Wire Clamp        |                           | 1      |
|                         |   | QSS2325-203BS         | Slide Switch      | KD-D30B                   | 1      |
|                         |   | QSS2325-203           | Slide Switch      | KD-D30 A/C/E/J            | 1      |
|                         |   | QSR0084-001           | V. Select Switch  | KD-D30U                   | 1      |
|                         | △ | VMA4151-001           | Insulator         | for Voltage select switch | 1      |
|                         |   | VYSR106-007           | Spacer            |                           | 1      |
| (Input Volume)          |   | VMW1580-***B          | P.W. Board        |                           | 1      |
| VR105,205               |   | VMW1580-***C          | "                 |                           | 1      |
|                         |   | QVZ6201-001           | V. Resistor       |                           | 1      |
| (Level Indicator)       |   | LT-1062               | L.E.D. Module     |                           | 1      |
| RA,RB                   |   | QRD161J-472           | C. Resistor       |                           | 2      |
| CC,CD                   |   | QET41ER-106N          | E. Capacitor      |                           | 2      |
| CA,CB                   |   | QET41HR-105N          | "                 |                           | 2      |
| CE                      |   | QET41ER-226N          | "                 |                           | 1      |
| (Indicator)             |   | VMW1580-***D          | P.W. Board        |                           | 1      |
| D961                    |   | GL-9PR92              | L.E.D.            | Red                       | 1      |
| D962,963                |   | GL-9NG92              | "                 | Green                     | 1      |
| (Rec Mute SW)           |   | VMW1580-***E          | P.W. Board        |                           | 1      |
|                         |   | QSP0301-002           | Push Switch       |                           | 1      |
| (Power Transistor)      |   | VMW2541-***B          | P.W. Board        |                           | 1      |
| Q1                      | △ | 2SC1162(B,C)          | Si. Transistor    |                           | 1      |
|                         |   | VKL5002-001           | Heat Sink         | for Q1                    | 1      |
|                         |   | DPSP3006Z             | Screw             | for Q1                    | 1      |
| (Hall IC)               |   | VMW2541-***C          | P.W. Board        |                           | 1      |
|                         |   | DN6835A               | Hall IC           |                           | 1      |
| (Power Switch)          |   | VMW2541-***D          | P.W. Board        |                           | 1      |
| S01                     | △ | QSP0219-061           | Push Switch       |                           | 1      |
| (Tape run LED)          |   | VMW2541-***E          | P.W. Board        |                           | 1      |
| D981 ~ 982              |   | GL-9PR92              | L.E.D.            | red                       | 3      |

## Mechanical Component Parts



# Enclosure Assembly and Electrical Parts (Except P.W. Board Parts)





**Mechanical Component Parts List**

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Ref. No. | △ | Parts No.   | Parts Name         | Remarks               | Q'ty |
|----------|---|-------------|--------------------|-----------------------|------|
| 1        |   | VKS2115-001 | Main Base          |                       | 1    |
| 2        |   | VKS4400-001 | Pause Trigger      |                       | 1    |
| 3        |   | VKW3006-026 | Spring             | Pause Trigger         | 1    |
| 4        |   | VKS4401-001 | FF Lever           |                       | 1    |
| 5        |   | VKW3006-027 | Spring             | FF Lever              | 1    |
| 6        |   | VKS4402-001 | Play Trigger       |                       | 1    |
| 7        |   | VKW3006-028 | Spring             | Play Trigger          | 1    |
| 8        |   | VKS4403-002 | FR Safety          |                       | 1    |
| 9        |   | VKS4404-001 | Rew Lever          |                       | 1    |
| 10       |   | VKW3006-029 | Spring             | Rew Lever             | 1    |
| 11       |   | VKS4405-00A | Pause Arm Ass'y    |                       | 1    |
| 12       |   | VKS4483-00A | Play Arm Ass'y     |                       | 1    |
| 13       |   | VKW4333-001 | Spring             | Pause Cam             | 1    |
| 14       |   | VKS3147-001 | Pause Cam          |                       | 1    |
| 15       |   | VKS4410-002 | Lock Bush          | Pause Cam             | 1    |
| 16       |   | VKW4334-001 | Spring             | Play Cam              | 1    |
| 17       |   | VKS4411-002 | Play Cam           |                       | 1    |
| 18       |   | VKS4410-002 | Lock Bush          | Play Cam              | 1    |
| 20       |   | VKS2117-00A | Disk Base Ass'y    |                       | 1    |
| 21       |   | VKR4265-00A | Supply Reel Ass'y  |                       | 1    |
| 22       |   | VKZ4003-003 | Felt               | Back Tension          | 1    |
| 23       |   | VKR4170-001 | Ring               |                       | 1    |
| 24       |   | VKS4131-001 | Reel Stopper       |                       | 1    |
| 25       |   | VKR4267-00A | Take-up Reel Ass'y |                       | 1    |
| 26       |   | VKR4170-001 | Ring               |                       | 1    |
| 27       |   | VKS4131-001 | Reel Stopper       |                       | 1    |
| 28       |   | VKS3148-00A | FR Base Ass'y      |                       | 1    |
| 29       |   | VKW3006-031 | Spring             | FF                    | 1    |
| 30       |   | VKW3006-032 | Spring             | REW                   | 1    |
| 31       |   | VKR4271-001 | Rew. Gear          |                       | 1    |
| 32       |   | VKZ4004-001 | Special Washer     | Rew Gear              | 1    |
| 33       |   | VKS4413-001 | FR Stopper         |                       | 1    |
| 34       |   | VKW3006-033 | Spring             | FR Base               | 1    |
| 35       |   | VKS4414-00A | FR Arm Ass'y       |                       | 1    |
| 36       |   | VKW3006-034 | Spring             | FR Arm                | 1    |
| 37       |   | VKH3000-045 | Collar             | "                     | 1    |
| 38       |   | VKS4416-002 | FR Trigger         |                       | 1    |
| 39       |   | VKW3006-035 | Spring             | FR Trigger            | 1    |
| 40       |   | VKS4417-001 | FR Cam             |                       | 1    |
| 41       |   | VKW3006-036 | Spring             | FR Cam                | 1    |
| 42       |   | VKS4410-002 | Lock Bush          |                       | 1    |
| 43       |   | VKS4418-001 | Return Lever       |                       | 1    |
| 44       |   | VKW3006-045 | Spring             | Return Spring         | 1    |
| 45       |   | VKR4272-00A | FW. Gear Ass'y     |                       | 1    |
| 46       |   | VKR4276-001 | Roller             |                       | 1    |
| 47       |   | VKL3352-00A | Chassis Base Ass'y |                       | 1    |
| 49       |   | VKL3354-00A | Button Case Ass'y  |                       | 1    |
| 50       |   | VKS4420-00A | Button Ass'y       |                       | 3    |
| 51       |   | VKS4420-00C | "                  |                       | 2    |
| 52       |   | VKS4493-00A | Pause Button Ass'y |                       | 1    |
| 53       |   | VKW4345-002 | Spring             |                       | 1    |
| 54       |   | " -001      | "                  |                       | 1    |
| 55       |   | VKW4326-001 | "                  |                       | 2    |
| 56       |   | VKL3355-002 | Rec Cam            |                       | 1    |
| 57       |   | VKL5125-00A | Main Cam Ass'y     |                       | 1    |
| 58       |   | VKL3357-002 | Sub Cam            |                       | 1    |
| 59       |   | VKL3358-001 | Switch Cam         |                       | 1    |
| 60       |   | VKW3002-094 | Tension Spring     | Switch Cam ~ Main Cam | 2    |
| 61       |   | " -100      | "                  | Switch Cam ~ Rec. Cam | 1    |

| Ref. No. | △ | Parts No.    | Parts Name             | Remarks                | Q'ty |
|----------|---|--------------|------------------------|------------------------|------|
| 62       |   | VKW3002-095  | Tension Spring         | Sub Cam                | 1    |
| 63       |   | VKS4422-001  | Select Arm             |                        | 1    |
| 64       |   | VKW4340-001  | Spring                 | Select Arm             | 1    |
| 65       |   | VKW4327-002  | Wire                   |                        | 1    |
| 66       |   | VKS4423-001  | Wire Stopper           |                        | 1    |
| 69       |   | VKF4115-00A  | Capstan Metal Ass'y    |                        | 1    |
| 70       |   | VKS4424-00A  | Take-up Idler Ass'y    |                        | 1    |
| 71       |   | VKS4427-001  | Pause Arm              |                        | 1    |
| 72       |   | VKW3002-096  | Tension Spring         | Take-up                | 1    |
| 73       |   | VKS4428-003  | Brake Arm (1)          |                        | 1    |
| 74       |   | VKW3002-097  | Tension Spring         | Brake Arm (1)          | 1    |
| 75       |   | VKS4429-001  | Brake Lever            |                        | 1    |
| 76       |   | VKS4430-002  | Brake Arm (2)          |                        | 1    |
| 77       |   | VKW3002-097  | Tension Spring         | Brake Arm (2)          | 1    |
| 78       |   | VKS4431-002  | Brake                  |                        | 1    |
| 79       |   | VKP4121-00A  | Pinch Roller Arm Ass'y |                        | 1    |
| 80       |   | VKW4356-001  | Pinch Roller Spring    |                        | 1    |
| 81       |   | VKL3359-002  | Slide Base             |                        | 1    |
| 82       |   | VKS2119-001  | Head Mount Base        |                        | 1    |
| 83       |   | VGH0421-003  | R/P Head Ass'y         |                        | 1    |
| 84       |   | ZMM090430-0A | E Head Ass'y           | R/P & E. Head          | 1    |
| 85       |   | VKW3001-020  | Compression Spring     |                        | 2    |
| 86       |   | VKW4342-002  | Slide Base Spring      |                        | 1    |
| 87       |   | VKW3002-099  | Tension Spring         |                        | 1    |
| 88       |   | VKS4432-002  | Roller                 |                        | 3    |
| 89       |   | VKS4433-001  | Switch Arm             |                        | 1    |
| 90       |   | VKS4434-001  | Cassette Guide         |                        | 1    |
| 91       |   | VKY4238-001  | Spring Plate           |                        | 1    |
| 92       |   | T41615-004   | Stell Ball             |                        | 1    |
| 93       |   | VKW4341-001  | Spring                 | Slide Base             | 1    |
| 94       |   | VKS4435-003  | Rec Lever              |                        | 1    |
| 95       | △ | VKW3002-011  | Tension Spring         |                        | 1    |
| 96       |   | VGP0601-013  | Solenoid Ass'y         |                        | 1    |
| 97       |   | VKW3002-043  | Tension Spring         |                        | 1    |
| 98       |   | VKS4436-001  | Rec Arm                |                        | 1    |
| 99       |   | VKF3120-00A  | Flywheel Ass'y         |                        | 1    |
| 100      |   | VKW3001-010  | Spring                 | Thrust                 | 1    |
| 101      |   | VKB3001-011  | Belt                   | Capstan                | 1    |
| 102      |   | VKL3402-001  | F.M. Bracket           |                        | 1    |
| 103      |   | VKS4437-001  | Thrust Plate           |                        | 1    |
| 104      | △ | MMI-6A2LKUA  | D.C. Motor             |                        | 1    |
| 105      |   | VKS4139-002  | Motor Pulley           |                        | 1    |
| 106      |   | VKZ4014-001  | Special Screw          |                        | 4    |
| 107      |   | VKS4438-002  | Rec. Safety Arm        |                        | 1    |
| 108      |   | VKW3002-039  | Tension Spring         | Rec S. Arm             | 1    |
| 111      |   | VKS4492-00A  | Rec. Arm Ass'y         |                        | 1    |
| 112      |   | VKY4239-001  | Pack Spring            |                        | 1    |
| 113      |   | VKS4490-001  | Select Arm             |                        | 1    |
| 114      |   | VMW4647-001  | Printed Wiring Board   | for REC/PB Head        | 1    |
| 115      |   | VKW3006-049  | Spring                 |                        | 1    |
| 116      |   | VKW4374-002  | "                      |                        | 1    |
| 117      |   | VKL3403-001  | Switch Bracket         |                        | 1    |
| 118      |   | VSH1121-001  | Leaf Switch            |                        | 2    |
| 119      |   | VSH1119-001  | "                      |                        | 3    |
| 121      |   | Q03093-838   | Washer                 |                        | 1    |
| 122      |   | " -627       | "                      | Thrust                 | 1    |
| 123      |   | " -827       | "                      | "                      | 1    |
| 124      |   | " -522       | "                      | Oil Cut                | 1    |
| 125      |   | REE1500      | E. Ring                | Select Arm x 1         | 2    |
| 126      |   | REE2500      | "                      | Rec. Arm Unit x 1      | 2    |
|          |   |              |                        | Switch Cam x 1         |      |
|          |   |              |                        | Pinch Roller Ass'y x 1 |      |

| Ref. No. | △ | Parts No.    | Parts Name       | Remarks  | Q'ty |
|----------|---|--------------|------------------|--|------|
| 128      |   | HPST2604Z    | Screw            | Solenoid Ass'y x 1<br>Pack Spring x 1,<br>Side Bracket Ass'y x 3 | 5    |
| 129      |   | HPST2606Z    | "                | Stell Ball   | 1    |
| 130      |   | HPST2612Z    | "                | Main Base x 1 Disk Base x 1                                      | 2    |
| 132      |   | SBSB2006Z    | "                | Leaf Switch  | 2    |
| 133      |   | SDSP2006Z    | "                | "  | 3    |
| 134      |   | VKZ4109-001  | Motor Screw      |  | 3    |
| 135      |   | SPSX2010N    | "                | R/P Head x 2 E. Head x 1   | 3    |
| 136      |   | SSST2604Z    | "                | Capstan Metal Ass'y  | 3    |
| 137      |   | SSST2605Z    | "                | Button Case  | 2    |
| 138      |   | SPSP2612Z    | "                | Side Bracket Ass'y   | 1    |
| 139      |   | SPSX2008N    | Screw            | E. Head  | 1    |
| 141      |   | VKL3399-001  | Side Bracket     |  | 1    |
| 142      |   | VKS4488-001  | Lock Arm         |  | 1    |
| 143      |   | VKH3001-054  | Flange Collar    |  | 1    |
| 144      |   | VKS4487-001  | Connecting Lever |  | 1    |
| 145      |   | VKW3002-063  | Tension Spring   | E. Button  | 1    |
| 146      |   | " -034       | "                | E. Lever   | 1    |
| 147      |   | VKS4480-001  | Eject Button     |  | 1    |
| 148      |   | VKH3000-053  | Collar           |  | 1    |
| 149      |   | VKL5256-002  | Bracket          |  | 1    |
| 150      |   | SPSK1425M    | Screw            |  | 1    |
| 151      |   | VKZ4130-001  | Cushion Rubber   |  | 3    |
| 152      |   | TFB345469-01 | Rubber Stopper   |  | 1    |
| 154      |   | VKL5295-001  | Stopper          |  | 1    |
| 155      |   | SSSP3004Z    | Screw            |  | 1    |
| 156      |   | SDSP3004Z    | Screw            |  | 1    |
| 157      |   | VKL5199-002  | Plate            |  | 1    |

**Enclosure Assembly and Electrical Parts List**  
**(Except P.W. Board Parts)**

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Ref. No.                        | △ | Parts No.     | Parts Name         | Remarks         | Q'ty |
|---------------------------------|---|---------------|--------------------|-----------------|------|
| 1                               |   | VJD3340-001   | Mecha. Cover       |                 | 1    |
| 2                               |   | VJD4437-003   | Disk Plate         |                 | 1    |
| 3                               |   | VKL5257-001   | Mecha. Bracket (L) |                 | 1    |
| 4                               |   | VXP4240-001   | Push Button        | Mecha.          | 6    |
| 5                               |   | VKB3000-053   | Belt               | Tape counter    | 1    |
| 6                               |   | VJD3339-001   | Blind              |                 | 1    |
| 7                               |   | VKS3159-001   | Volume Lever       |                 | 2    |
| 8                               |   | VXS4072-001   | Slide Knob         |                 | 2    |
| 9                               |   | VKS3160-002   | Remote Bar         |                 | 4    |
| 10                              |   | VXP4234-001   | Push Button        |                 | 4    |
| 11 ~ 15<br>( 18,21 )<br>23 ~ 28 |   | ZCKDD30Y-CBF  | Front Plate Ass'y  |                 | 1    |
| 11                              |   | VJC1236-002   | Front Plate        |                 | 1    |
| 12                              |   | VJD4593-001   | Scale Plate        |                 | 1    |
| 13                              |   | VJD4594-002   | Plate              |                 | 1    |
| 14                              |   | E69212-001    | JVC Mark           |                 | 1    |
| 15                              |   | VJD3342-001   | Counter Escutcheon |                 | 1    |
| 16                              |   | VXP4241-001   | Reset Knob         |                 | 1    |
| 17                              |   | VKW3001-058   | Compression Spring |                 | 1    |
| 18                              |   | VJD3357-001   | Button Escutcheon  |                 | 1    |
| 19                              |   | VXP4239-001   | Push Button        | Eject           | 1    |
| 20                              |   | VKW3001-063   | Compression Spring |                 | 1    |
| 21                              |   | VJD3341-002   | Button Case        |                 | 1    |
| 22                              |   | VKL5262-00A   | Door BKT. Ass'y    |                 | 1    |
| 23                              |   | VJK3195-001   | Finder             |                 | 1    |
| 24                              |   | VJD2189-001   | LED Escutcheon     |                 | 1    |
| 25                              |   | VJD4595-002   | LED Plate          |                 | 1    |
| 26                              |   | VJD3198-001   | Light Lens         |                 | 1    |
| 27                              |   | VJD4592-001   | Button Escutcheon  |                 | 1    |
| 28                              |   | E69189-002    | Push Knob Ass'y    |                 | 1    |
| 29                              |   | VKS4003-011   | Pipe               |                 | 1    |
| 30                              |   | VYH4460-001   | Gear               |                 | 1    |
| 31                              |   | VJT2073-001   | Cassette Door      |                 | 1    |
| 32                              |   | VKY4273-001   | Cassette Spring    |                 | 2    |
| 33                              |   | VKY4252-002   | "                  |                 | 1    |
| 34                              |   | VJT3089-001   | Cassette Lid       |                 | 1    |
| 35                              |   | VKW4365-002   | Holder Spring      |                 | 1    |
| 36                              |   | VJD3311-001   | Jack Escutcheon    |                 | 1    |
| 38                              |   | VJC2075-001   | Bottom Cover       |                 | 1    |
| 39                              |   | VJF4003-002   | Foot               |                 | 4    |
| 40                              |   | VJC2076-001   | Top Cover          |                 | 1    |
| 41                              |   | VKZ3001-002   | Special Screw      |                 | 4    |
| 42                              |   | VYN2100-002PA | Name Plate         | KD-D30B         | 1    |
|                                 |   | " -003PA      | "                  | KD-D30A         | 1    |
|                                 |   | " -004PA      | "                  | KD-D30C, -004PK | 1    |
|                                 |   | " -005PA      | "                  | KD-D30E         | 1    |
|                                 |   | " -006PA      | "                  | KD-D30J         | 1    |
|                                 |   | " -007PA      | "                  | KD-D30U         | 1    |
| 43                              |   | LD-702        | LED                |                 | 1    |
| 44                              |   | VMW4629-001   | P.W. Board         |                 | 1    |
| 45                              |   | VKL127-001    | Amp. Chassis       |                 | 1    |
| 46                              |   | VJC2074-002   | Rear Panel         |                 | 1    |
| 47                              |   | VKL3383-001   | Angle              |                 | 1    |
| 48                              |   | VKL2160-003   | Front Bracket (L)  |                 | 1    |
| 49                              |   | VKL3384-002   | " (R)              |                 | 1    |
| 50                              |   | VKL3387-001   | Power Bracket      |                 | 1    |
| 51                              |   | VKL3395-001   | Rec. Arm           |                 | 1    |
| 52                              |   | VKL5260-00A   | Rec. Bracket Ass'y |                 | 1    |
| 53                              |   | VKW4363-001   | Spring             |                 | 1    |
| 54                              |   | VKW4364-002   | Rec. Wire          |                 | 1    |

| Ref. No. | △ | Parts No.      | Parts Name        | Remarks                              | Q'ty |
|----------|---|----------------|-------------------|--------------------------------------|------|
| 55       |   | VMW4644-001    | P.W. Board        | Voltage Select SW<br>KD-D30A/B/C/E/J | 1    |
| 56       | △ | QSS2325-203BS  | Slide Switch      | KD-D30B                              | 1    |
| 57       | △ | " -203         | "                 | KD-D30A/C/E/J                        | 1    |
| 58       | △ | VMA4151-001    | Insulator         | for V.S. Switch                      | 1    |
| 59       | △ | VKS4354-001    | Wire Clamp        |                                      | 1    |
| 59       | △ | QSR0084-001    | V. Select Switch  | KD-D30U                              | 1    |
| 60       | △ | VKL4275-001    | Bracket           | "                                    | 1    |
| 61       | △ | VTP54C3-031BBS | Power Transformer | KD-D30B                              | 1    |
|          | △ | " -031A        | "                 | KD-D30A/E                            | 1    |
|          | △ | " -032B        | "                 | KD-D30C/J                            | 1    |
|          | △ | VTP54U3-031B   | "                 | KD-D30U                              | 1    |
| 62       | △ | QMP9017-008BS  | Power Cord        | KD-D30B                              | 1    |
|          | △ | QMP2560-200    | "                 | KD-D30A                              | 1    |
|          | △ | QMP1200-200    | "                 | KD-D30C/J                            | 1    |
|          | △ | QMP3900-200    | "                 | KD-D30E                              | 1    |
|          | △ | QMP7600-200    | "                 | KD-D30U                              | 1    |
| 63       | △ | QHS3876-162BS  | Strain Relief     | KD-D30B                              | 1    |
|          | △ | " -162         | "                 | KD-D30A/C/E/J/U                      | 1    |
| 64       |   | VKC5160-001T   | Tape Counter      |                                      | 1    |
| 65       |   | VKL5258-001    | Eject Lever       |                                      | 1    |
| 66       |   | VKH4387-001    | Shaft             |                                      | 1    |
| 67       |   | VKZ4001-011    | Wire Holder       |                                      | 5    |
| 68       |   | VKL5276-001    | Lamp Holder       |                                      | 1    |
| 69       | △ | VGZ0001-006    | Lamp Ass'y        |                                      | 1    |
| 70       |   | T47818-002     | Spacer            |                                      | 4    |
| 71       |   | VXP4258-001    | Push Button       | Rec. Mute                            | 1    |
| 72       |   | VKL5268-001    | Bracket (A)       |                                      | 1    |
| 73       |   | VKL5269-001    | Bracket (B)       |                                      | 1    |
| 74       |   | TAW000504-01   | Connector         | KD-D30U                              | 2    |
| 81       |   | REE2500        | E Ring            | Eject Escutcheon                     | 1    |
| 82       |   | REE3000        | "                 | Rec. Bracket x 1                     | 2    |
| 83       |   | LPSP2604Z      | Screw             | Eject Lever x 1                      | 4    |
| 84       |   | SSSP2604Z      | "                 | Input Vol. P.W.B.                    | 2    |
| 85       |   | LPSP3006Z      | "                 | Door Bracket Ass'y                   | 4    |
|          |   |                |                   | Power Switch P.W.B. x 2              |      |
|          |   |                |                   | V. Select SW x 2 (KD-D30U)           |      |
| 86       |   | SDSF2606Z      | "                 | Tape Counter                         | 2    |
| 87       |   | SDSF2608Z      | "                 | P.W.B.                               | 3    |
| 88       |   | SDSP3006R      | "                 | V. Select Switch                     | 2    |
| 89       |   | SDST2604Z      | "                 | Mecha. Bracket                       | 2    |
| 90       |   | SDST2606Z      | "                 | Blind x 2 Lamp holder x 1            | 3    |
| 91       |   | SDST3006R      | "                 | Jack Escutcheon x 1                  | 9    |
|          |   |                |                   | Rear Panel x 3                       |      |
|          |   |                |                   | Angle x 2                            |      |
|          |   |                |                   | Power Bracket x 1                    |      |
|          |   |                |                   | Top Cover x 2                        |      |
| 92       |   | SDST3006Z      | "                 | Mecha. x 6                           | 32   |
|          |   |                |                   | Hall IC x 1                          |      |
|          |   |                |                   | Front Plate x 2                      |      |
|          |   |                |                   | Bottom Cover x 6                     |      |
|          |   |                |                   | Front Bracket (L) x 3                |      |
|          |   |                |                   | Front Bracket (R) x 3                |      |
|          |   |                |                   | Power Bracket x 1                    |      |
|          |   |                |                   | Rec. Bracket x 1                     |      |
|          |   |                |                   | Power Transformer x 4                |      |
|          |   |                |                   | P.W.B. x 3                           |      |
|          |   |                |                   | Wire Holder x 2                      |      |
| 93       |   | SSST3006Z      | "                 | Front Plate                          | 3    |
| 94       |   | SDST3008Z      | Screw             | Main P.W.B. x 5                      | 11   |
|          |   |                |                   | Power Supply x 4                     |      |
|          |   |                |                   | Transistor x 2                       |      |

# Packing

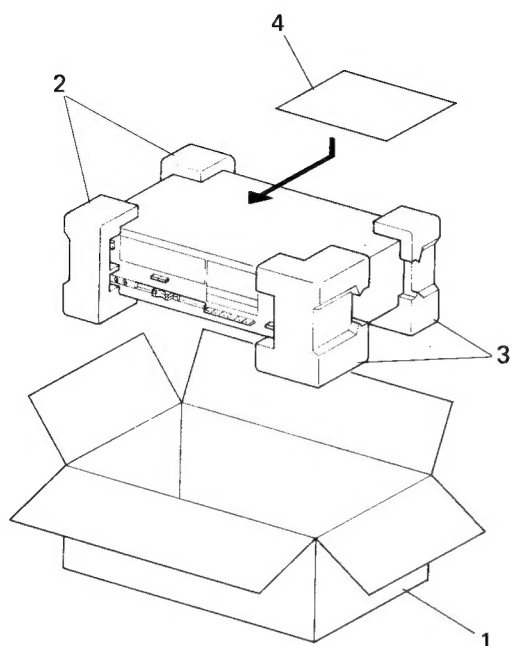


Fig. 18

## Positions of controls and switch knobs at renew packing

|                          |           |
|--------------------------|-----------|
| Power switch             | : OFF     |
| NR system SWs            | : OFF     |
| Tape select SWs          | : SF/NORM |
| Rec level controls       | : MIN     |
| Counter                  | : 000     |
| Mecha. operation buttons | : OFF     |
| Eject                    | : OFF     |
| Rec Mute SW              | : OFF     |

## Packing Material Parts List

| Ref. No. | Parts No.     | Parts Name | Remarks                           | Q'ty |
|----------|---------------|------------|-----------------------------------|------|
| 1        | VPD2100-J02   | Carton     | KD-D30B                           | 1    |
|          | " -J03        | "          | KD-D30A                           | 1    |
|          | " -J04        | "          | KD-D30C                           | 1    |
|          | " -J05        | "          | KD-D30E                           | 1    |
|          | " -J06        | "          | KD-D30J                           | 1    |
|          | " -J07        | "          | KD-D30U                           | 1    |
| 2        | VPH3111-001   | Cushion    | Left                              | 1    |
| 3        | VPH3112-001   | "          | Right                             | 1    |
|          | Q04141H       | Wire Clamp | for Power Cord                    | 1    |
|          | TKS000501-08  | Sheet      | for Unit                          | 1    |
|          | VPE4002-005   | Poly Bag   | for Unit KD-D30B                  | 1    |
|          | QPGA060-06005 | Envelope   | for Unit<br>KD-D30A/C/E/J/U       | 1    |
| 4        | AP4056A-36    | Poly Bag   | for PIN Cord                      | 1    |
|          | VPE4002-004   | "          | for Inst. Book KD-D30B            | 1    |
|          | AP4056B-077   | Envelope   | for Inst. Book<br>KD-D30A/C/E/J/U | 1    |
|          |               |            |                                   |      |

# Accessories

△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

| Parts No.     | △ | Parts Name            | Remarks                           | Q'ty |
|---------------|---|-----------------------|-----------------------------------|------|
| VMP0002-00B   |   | Pin Cord              |                                   | 2    |
| VNN0095-901   |   | Instruction Book      | KD-D30A/C/J/U                     | 1    |
| " -301        |   | "                     | KD-D30B/E                         | 1    |
| BT20013C      |   | Guarantee Certificate | KD-D30B                           | 1    |
| BT20029B      |   | Warranty Card         | KD-D30A                           | 1    |
| BT20025E      |   | "                     | KD-D30C                           | 1    |
| BT20047       |   | "                     | KD-D30U/J                         | 1    |
| TJL000443-01  |   | Seal                  | KD-D30B<br>(Made in Japan)        | 1    |
|               |   | BEAB Label            | KD-D30B                           | 1    |
| VNC5004-001   |   | Mark Sticker          | KD-D30B/E                         | 1    |
| TLT052401-01  |   | Warning Label         | KD-D30A/B/E<br>for Dis Connection | 1    |
| QZL1002-003BS |   | "                     | KD-D30B<br>for 2 Pin Power Cord   | 1    |
| T44362-001    |   | CSA Marker            | KD-D30C                           | 1    |
| E66416-003    |   | Envelope              | KD-D30J<br>for Warranty Card      | 1    |
| BT20046A      |   | Special Relay Card    | KD-D30J                           | 1    |
| BT20046       |   | "                     | KD-D30U                           | 1    |
| BT20044D      |   | Safety Instruction    | KD-D30J                           | 1    |
| TLT000505-01  |   | UL/CSA Caution Label  | "                                 | 2    |
| E7795-1       |   | EP Mark               | KD-D30U                           | 1    |
| VNC5311-101   |   | Caution Card          | KD-D30U                           | 1    |
| V04062-001    | △ | Siemens Plug          | "                                 | 1    |
| T46328-001    |   | Caution Label         | "                                 | 1    |
| VND4037-001   |   | F. Mark Label         | KD-D30E                           | 1    |